A

RELATION

OF A

Journey to the Glaciers

IN THE

DUTCHY OF SAVOY.

Tranſlated from the FRENCH of

M. T. BOURRIT,

Precentor of the Cathedral Church at GENEVA.

By CHA. and FRED. DAVY.

Exemplum ſtatuite in *his*, ut adoleſcentuli
Vobis placere ſtudeant potius quam ſibi.

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M,DCC,LXXVI.

BRITISH MUSEUM

TO THE HONOURABLE

MRS. *RICHARD WALPOLE*,

THIS VOLUME IS INSCRIBED,

IN GRATEFUL ACKNOWLEDGMENT

OF THE MANY FAVOURS

CONFERED UPON

THE TRANSLATORS.

THE EDITOR's PREFACE.

THERE is not any thing which can be offered to the Public, however clear or proper in the judgment of the writer, but ſtill is liable to be oppoſed either from prejudices or miſtake. One would ſcarcely think it poſſible, the character of *Pictureſque*, prefixed to the relation of a journey through the moſt romantic country in the world perhaps, could ever have been reckoned an objection to it: but thus it happened, and this addition to the Title of Monſieur *Bourrit*'s Narrative, as it was diſtributed amongſt the Friends of the Tranſlators, prevented the ſucceſs of many applications from them in its favour. It gave rom, it ſeems, for a pre-

a ſumption,

ſumption, that it was a mere deſcriptive Triſle, which though it might delight and entertain the *Fancy*, could not merit the attention of a man of ſenſe; as if it were indubitably certain, that what is recommended to the *Taſte* muſt *therefore* be unworthy of the *Judgment*. Let us try for an apology.

It may be obſerved then, that as *Truth* is naturally the object of the *Judgment*, ſo *Elegance* or *Beauty* is naturally the object of our *Taſte* *: and that theſe two *diſtinct* powers by which we are enabled to diſcover

* No term was ever more happily applied by *metaphor*, than *Taſte*, to the perception and enjoyment of *Elegance* or *Beauty*, which admits of ſeveral modifications, and ſo dependant upon cuſtom and habit, though its principles are founded in our conſtitution: whereas the Mind determines abſolutely, without any modes of difference upon *Truth*; and all men who diſcern it, judge of its exiſtence, without the leaſt variety in their idea: of two things which are both elegant, we can fre-

ver and to reliſh Truth and Beauty, have their exiſtence originally together in the ſame mind. If this be founded upon fact, it follows, that in *general*, 'tis owing to a *partial Education*, where we find them ſeparated; and that it is a *faulty* one, is clear too, ſince undoubtedly the moſt ac-

frequently diſtinguiſh one to be more ſo than the other, but all *Truths* are ſuch equally, and all men equal in their perception of them. The power of diſcerning *Truth* belongs to us as *Men*, ſince it is not only the prerogative, but the *foundation* of our rational nature, and the moſt unlettered peaſant who diſcerns a truth, knows it full as well, conſidered ſingly, as a *Bacon* or an *Ariſtotle*.

Indubitable certainty, whether it ariſes from *Analogy* or *Teſtimony*, hath by ſome indeeed been looked upon as an inferior ſpecies of *Truth*; in many caſes it *muſt* influence and regulate our conduct, as it neceſſarily fixes our opinions; but though it anſwers thus the *purpoſes of Truth*, it never riſes higher than *probable*, and ſometimes gradates downward, till it reach the very line that terminates the boundary of what is barely *poſſible*.

compliſhed man, is he who carries every native Principle the neareſt to perfection. To this unequal cultivation of our mental powers, it is to be attributed, that men of *Taſte* are apt to look upon the ſearch of *Truth*, as damping all the fire of Genius: whilſt thoſe of deeper thinking, are diſpoſed to treat the cultivation of our *Taſte*, as the purſuit of Folly: both are ſurely in an error; ſince, if there be no objection from the *nature* of the human mind, the love of *Truth* and *Beauty* might be jointly cheriſhed; and as one or other is neglected, it is not uncommon to obſerve the man of rigid *Truth*, with all the merit of ſcholaſtic Erudition, incapable of recommending it to the affections; or on the contrary, the man of *Taſte* alone, without the power of inveſtigating and deducing *real Truths*, perplexed with their *reſemblances*, and who can reliſh none, but ſuch as are addreſſed to his *Imagination* only. Books of abſtract reaſoning, are the averſion of the one, and Books of entertainment

ment of the other. Thus writing has been ſeparated into two diſtinct claſſes, the *ſcientific*, and *diverting*; and it would be well if this were all; diſlike to different compoſitions, unhappily expands upon the Authors of them: it ſeldom ſtops at cenſuring the works themſelves, but leads in time to perſonal averſion and contempt: whereas in fact that ſtrong deſire which urges on the philoſophic mind, and carries it from *Truth* to *Truth*, as it is owing to the ſame principle, which carries others forward ſtill in ſearch of *Beauty*, when properly conſidered, ſhows the error of neglecting either.

HAD a paſſion for *Variety*, which ſtrongly operates in every mind, and ſeems to be *one* general *final* cauſe at leaſt of Beauty, not been univerſally implanted in our Nature, men would have ſat down upon their firſt attainment, be what it would, and fixed in admiration of a ſingle truth, or elſe incapable of taking their attention

off, from what they firſt ſurveyed of *elegant*, our *firſt* purſuit would probably have been our *laſt**; inſtead of that progreſſion in

* The pleaſure which ariſes from a ſight of what is elegant or beautiful fixing our attention, it hath often been obſerved that Beauty as *apparently* exiſting in the object, was appointed chiefly for an indicative ſignal of of its merit, or at leaſt as an inducement for us to acquire a knowledge of whatever carries this diſtinguiſhed token; to this it may be added (ſince knowledge ought not to be limited to what is beautiful in Nature) that the number or the oppoſition of their *parts*, or ſomewhat ſtriking in the *colouring*, takes place with other objects, where ſuch delicate conſtructions and gradations of them may be wanted, as conſtitute the mediate or mechanic cauſes of *material Beauty*; whilſt *Novelty alone* ſolicits and attracts our notice with ſuch as are defective in the charms of *Multiformity* or *Elegance:* yet ſtill however ſtrange it may at firſt appear, the *progreſs* of our knowledge ſeems to be directly owing to what approaches nearer to *Diſlike* than *Pleaſure*, to ſomething more than an *indifference* for *ſameneſs*, which ariſes from the continued ſurvey of thoſe very objects, that were originally highly pleaſing, and which lays the *neceſſary deep Foundation* of our

in the *Sciences*, and of that improvement in the *Arts* we now behold, inſtead of all

our paſſion for *Variety*; but this *tedium, ennui, diſtaſte*, or whatever elſe it may be called, comes on, when once we have conſidered any object as a *whole*, examined the connection and the ſtructure of its ſeveral parts, and diſcovered after what manner they operate to produce a *unity*, of effect, or to anſwer *all* the purpoſes for which they were intended. So long as we are capable of going forward in this ſearch, a ſingle object has ſufficient beauty to detain the eye, by giving an employment to the *Underſtanding*; but no ſooner have we acquired ſuch a knowledge of it, than its attractive power begins gradually to grow weaker, till it acts no longer. The object that before ſollicited and drew us to it, now repels us for a time: the mind attentive only to the *knowledge* it has gained, which acts in turn with all the preſent force of novelty upon it, and truſting to the power of calling back thoſe pleaſures it enjoyed in the purſuit, attaches itſelf ſoon to other objects, though far inferior perhaps in point of elegance, to what it turns away from. Such is the providential appointment of cauſes and effects, that thoſe things which were made to pleaſe us by the beauty of their forming or colouring, are limited in the

thoſe bleſſings we enjoy from cultivated life and manners, the buſineſs of the world muſt

continuance of their influence; though naturally pleaſing, they can pleaſe no *longer* than would be conſiſtent with the complicated end of Man's creation, *The production of all poſſible happineſs, ſo far as it is ſuitable to his condition, in conjunction with all poſſible knowledge and virtue:* The happineſs of ſenſual creatures might have been procured, without the attainment of the *one*, or the practice of the *other*, but as it is reaſonable to believe that God intended the delights of ſenſual and at the ſame time *rational* beings, ſhould by natural effect conduce to *higher* purpoſes, accordingly we find that Beauty of appearance which gives to the *inanimated* parts of the creation their *connection* with us, and endears them by the pleaſure they afford, ſtill leads to the advancement of our knowledge, by that pleaſure's paſſing through indifference to wearineſs, and forcing our attention out to other objects. Whilſt the beauties of *the world of life in general*, beſides the furtherance of *knowledge*, cheriſh all thoſe ſympathetic feelings, which correct the ſelfiſh Paſſions, and extend our Kindneſs and Affection beyond the limit of our own Species.

Some

muſt have ſtood ſtill, and men at beſt, if it be poſſible they could ſubſiſt in ſuch a ſtate, would have reſembled only different groups of Statues. The writer therefore who is actuated by the love of *Beauty*, and the Writer who is actuated by the love of *Truth*, being originally put in motion by the very ſame ſpring, naturally operate to the ſame end, a completion of the general deſigns of Providence for the happineſs of the world. Should their labours not appear of *equal* merit; yet both are certainly deſerving praiſe; but that conduct of our education muſt be wrong, which ſeparates thoſe Powers, that might have been a ballance

Some advantage or improvement was deſigned to be the attendant, or to the conſequence of every pleaſure, and our fineſt and moſt lively feelings, become dull and languid, as all our *Paſſions* die away, when their influence and impulſe are no longer uſeful. How ſweetly are we held in Life by ſuch attachments as unite our intereſt with our pleaſures! and how friendly is the diſengagement from them, to a preparation for our paſſing out of this World, without regretting what we leave behind us in it!

to each other, and have acted jointly with a double force. In all the works of Nature, uſefulneſs and beauty are united; let us copy then her manner; to ſtop at mere amuſement, ſeems a waſte of time, which certainly might be employed to the very ſame purpoſe with additional advantages; and not to engage the *Graces* in the ornamenting *Truth* is in fact to offer her to inſults. Some works of elegance *alone* indeed, and thoſe of the deſcriptive kind particularly, have their uſe at preſent, under many diſadvantages, as they tend to the ſuggeſtion of ideas which are not immediately impreſſed. The marks of infinite Beneficence and Power, are ſtamped in every corner of the Univerſe, and men may infer the Wiſdom likewiſe of the Cauſe from the *ſymmetry* and *Beauty*, as well as from the *uſefulneſs* and *regularity* of the effects. It is impoſſible, one would think, to look upon the world diverſified with ſo much *elegance* in all its *leſſer* parts, and ennobled with ſuch *grandeur* and *ſublimity*

mity in the *larger*, (where even its ſeeming blemiſhes contribute both to perfect and enrich the whole,) without the higheſt pleaſure. There *are* Eyes it is true, which look without ſeeing, as there are Ears that hear not; but this is not the fault of Him who formed them: the *general* effect of a ſurvey of Nature is Delight; whilſt every ſpecies of Landſcape, like every different ſpecies of * Melody, excites its own peculiar genuine emotions, nor are they limited to the imagination only, they make their paſſage through it to the Heart, and lead to acts of Gratitude and Adoration; theſe are more than Trifles. An ideal

* The ſeveral ſpecies of *Melody*, have never yet been accurately determined; whereas thoſe of *Landſcape* are found to be no more than ſixteen, from whoſe different combinations, with the addition of aceeſſory circumſtances, all the varieties of Landſcape are derived; but it is not meant to be affirmed of Landſcape as of Melody, that it is capable of exciting only an Emotion. The World may ſhortly be favoured with a Treatiſe upon the Principles and Effects of Landſcape, by a very ingenious Artiſt, *Mr. Alexander Cozent.*

ideal preſence raiſed by juſt deſcription, muſt have ſimilar effects with *real* objects, whether grand or beautiful: the dulleſt finds his mind exalted by the contemplation of *Sublimity* and *Vaſtneſs*, and the giddy feels his ſpirits calmed for temperate enjoyments by that of *elegant ſimplicity*; it hath been obſerved that many of the greater evils of life, thoſe which affect the peace and happineſs of Societies and States, ariſe ſometimes from private ſelf-diſſatisfaction, and he who renders a man more eaſy with himſelf, renders him ſo to all Mankind. *Paſtoral* writing, whoſe great merit conſiſts in the deſcriptive pictures it exhibits of the quiet ſcenes of rural Nature, induces a ſerenity of Pleaſure, and inſpires tranquility of ſentiment, beyond any other compoſition of Poetry, for this reaſon probably it is admired in common more than either *Tragedy* or *Epic*. A ſimilar obſervation might be made upon ſome publications we have lately ſeen of the epiſtolary ſort, in which the Authors

give

give not only a general ſketch of the countries they paſs through, they place us as it were upon the very ſpot which they deſcribe, and we conceive ourſelves belonging to the party, whilſt the abſence of fatigue or danger, leaves the mind at liberty to form and to purſue its own reflections.

It is but juſtice to Monſieur *Bourrit*, to obſerve, the following narrative affords us ample proofs of a diſtinguiſhing imagination; his journey to the *Glaciers*, gives a truly pictureſque deſcription of ſuch ſcenes, as muſt have been particularly ſtriking to the cultivated Taſte of a Painter; little more indeed is added, than ſuffices to connect them; and it may be wiſhed he had explained himſelf with more preciſion, in accounting for thoſe waves of ice, which have ſuch ſingular appearances; a point in which he leaves the mind not fully ſatisfied.

WITH regard to the Tranſlation, it is offered as a firſt attempt: no precaution has been wanting to render it correct: the Tranſlators have endeavoured to give it the air of an original, ſo far as their abilities permitted, and it was conſiſtent with the faithfulneſs of a Tranſlation; and the Editor preſumes they have avoided no unuſual fault, the introducing foreign idioms, which tend directly to deſtroy the character of every Language.

BUT after all, it is with writing as with Life; on looking over what is finiſhed, it is eaſy to diſcover errors, that eſcaped even a cloſe examination, and to ſee that many paſſages might have been altered for the better when it is too late; ingenuous acknowledgments is all that can be offered for theſe overſights of the Tranſlators, and they truſt them to the candour of

those

thoſe Friends, whoſe favour has ſo amply been experienced in the encouragement of their undertaking.

HENSTED, SUFFOLK,
Dec. 26, 1774.

THE

Author's Advertiſement.

THE Author thinks proper to acquaint the Public, that he had no intention of promoting the ſale of his Plates by the following Narrative; but that its publication was requeſted of him, as affording hints that might be uſeful; however, as the Views intended to be engraved were the principal object of his plan, he thought himſelf obliged to ſay ſomething of *them*, before he entered upon the Relation of his Journey. He accordingly obſerves, that the firſt time he went into this romantic country, the number, and immenſity of the objects which ſtruck his ſight, at the ſame time preſented difficulties it was impoſſible for him then to ſurmount, not having formed the leaſt idea of them before he ſet out:

out: his ſecond attempt was more ſucceſsful; when he not only determined his choice of the *Proſpects*, but was enabled to invent a new method of taking them with greater exactneſs.

His end thus anſwered, he brought back fourteen ſketches, which thoſe who are pleaſed with theſe ſubjects, as well Foreigners as Natives, have judged worthy the attention of the Curious.

He takes upon him to aſſure the Public, that not only the *larger* Maſſes are deſigned in theſe Views, but that he has made out even the *ſmaller*; and that nothing is added from imagination only, as in almoſt * all the Drawings of theſe places he has had an opportunity of ſeeing. That he had examined the Print from a Plate

* The author has excepted from this conſure two Views of *Chamouni*, , drawn with great care and exactneſs by Mr. *Jalabert*.

ADVERTISEMENT.

Plate of Mr. *Vivaré* in *London*, repreſenting the icy valley of *Montanvert*, of which he affirms there is hardly ſo much as one ſtroke taken from Nature; and that another of the valley of *Chamouni* is equally falſe; (he means the thirteenth Plate in the account of the Glaciers of *Switzerland*, by Mr. *Grouner*) all which will not appear extraordinary, when we are informed that thoſe gentlemen, who had hitherto gone over the *Glaciers* *, were rather men of *Taſte* than of Draughtſmen. He has experienced beſides, that one journey is inſufficient to render drawings of this ſort perfect. That he found it highly neceſſary to attend to the peculiar ſtate and condition of the air and weather, of which we never can be ſecure, and which may prove very unfavourable to the Deſigner, upon a ſingle viſit, or in one ſeaſon only; though the completion

* *Glaciers* are beds of ice accumulated upon the declivities between mountains.

pletion of his ſketches muſt depend upon their clearneſs and ſerenity. We go to the valleys—are ſtruck with admiration—trace out ſome looſe lines in haſte—add a few reviſing touches by way of memorandums, and at our return *Imagination* does the reſt.

He makes no ſcruple to ſay, that it is after this manner moſt of the Views which accompany the deſcription of the *Glaciers* of *Switzerland* have been executed, and that of the Seventeen Plates which adorn this work, there are only three to be relied on for their exactneſs; though he acknowledges at the ſame time, they are engraved with *Taſte*.

With reſpect to the ſpecies of engraving for his own Drawings, he gives the preference to *etchings*, (if they may be called Engravings) as more in the ſtile of a Painter; and he apprehends the biting-in *Aquafortis* will have a freer effect in theſe

ſubjects

ſubjects than the ſtrokes of the graver. He adds another reaſon for the preference of *etchings* in this inſtance, which had more weight with him perhaps than the former, namely, that the etchings could be finiſhed by himſelf. A love of truth and exactneſs ſeems to operate very powerfully with our Author, and theſe could not preciſely be attended to by a perſon who had not at leaſt been preſent at the taking his *Deſigns:* the engravings might have had an *elegance* and *force*, but a *real* Connoiſſeur, as he very juſtly obſerves, will in this caſe give the preference to a Plate of *inferior* merit, in which he can depend upon the Faithfulneſs of the Repreſentation.

A

TABLE of the DRAWINGS

Which were originally intended to have been publiſhed by Monſ. BOURRIT *.

GENERAL *Chart.*

Firſt View of Mount Blanc, *from the Environs of* Geneva.

View of the Valley of Cluſe.

View of the Entrance or Straits of Cluſe,

View of the little Lake above the Goat's Bridge.

View of the Fall of the River Arve, *near the* Goat's Bridge.

View of the Walls of Ice at the Glacier of Boſſons.

View of the valley of Chamouni, *from the Height of the ſame Glacier.*

Appearance

* We have been informed that Monſ. *Bourrit* has given up the thought of etching his Deſigns, and that they are now in the poſſeſſion of a Gentleman in *England.*

TABLE OF THE DRAWINGS.

Appearance of the Glacier des Pelerins.

View particularly intereſting to a Genevois, *taken near the Summit of one of the* Needles.

View of the valley of Ice from Montanvert.

Appearance of the Glaciers behind Mount Blanc.

Appearance of the level valley of Ice at the Glacier of Telefre.

View of an Avalanche, or Fall of Snow, at the Glacier des Bois, *from the Side of* Montanvert.

Profile of the Maſs of Ice at the Source of the Arveron.

View of the ſame Maſs, and of the Dome of Ice.

View of the ſame Maſs as it was again covered over.

View of the Chain of the Needles *from the Height of* Breven.

View of the Glacier of Tour.

View of the Caſcade in the Valorſine.

Appearance of the Country of Vallais, *from the Heights of* Triente.

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The AUTHOR's

Preliminary Diſcourſe.

THE Relation here publiſhed, is the fruit of three journeys into the Dutchy of Savoy. To obtain a juſt idea of a country ſituated in the very heart of the Alps, will I preſume, be allowed a much more difficult undertaking, than to acquire the knowledge of almoſt any other. A ſingle viſit to moſt places, is in general ſufficient to anſwer every purpoſe; and eſpecially to ſuch as having been already many times deſcribed, the later traveller has it

in his power to compare the ſeparate remarks of others who have gone before him, and to blend them, if he pleaſes, in a new narration with his own. All this is eaſy, and familiar; whereas an attempt to viſit and deſcribe a country little known, and almoſt wholly ſeparated from others, without archives, or memorials, (not to mention the fatigues and hazards of the journey,) has a claim upon the candour of the Public.

I conceived, nevertheleſs, that I ought not from a preſumption of this indulgence, to haſten the impreſſion of my eſſays, till they were in ſome degree correct. Four years have paſſed between my firſt journey and my laſt; my papers in the mean time have been ſhown to every perſon who was deſirous of peruſing them; and it was not till September laſt*, that I declared by an advertiſement my

* 1773.

my determination for printing them. But the work deſigned for publication, was it ſeems delay'd too long; a reaſon which perhaps determined one of my countrymen to be beforehand with his *Voyage Pittoreſque aux Glaciers:* He undertook this journey furniſh'd with my Narrative, and he compleated it in ſix or ſeven days: yet although he tells us, that *he ſet out with a fixed reſolution to go over the Glaciers*, he really has ſeen no more of them than one; which to ſay the truth, he ſeems barely to have ſeen; and he has not even ſo much as attempted to give a look at the reſt; convinced, he ſays, that a walk of many leagues would afford him but a repetition of the very ſame objects, which had already made their full impreſſion. A new and eaſy method this of deciding from ignorance, without the trouble of examination.

It may well be ſuppoſed I could ſay more upon this haſty Narrative of my country-

man, were the ſubject of importance; but I paſs it by, to give the Reader ſome account of a journey I have lately made to the Glaciers of the Canton of *Berne*, and thoſe of *Vallais*, which has taken me up three weeks.

A conviction of the relation there is between theſe Glaciers, and thoſe of *Savoy*; their general reſemblance, and the appearances which ſpecifically diſtinguiſh them, are not the only fruits I have gathered in this journey. Fourteen new *Views*, with which I have enriched my collection in the excurſion, will be ſubjects of a particular Relation, and of a new Work; yet it ſeems but juſt in this place, to advertiſe the Public, that theſe Glaciers are very far from being ſo agreeable to go over as thoſe of *Chamouni*, and that they are in general much leſs conſiderable; that the roads, which frequently are difficult, and ſometimes dangerous, the mountains we muſt croſs, and the valleys of

eight,

eight, ten, or twelve leagues in length, it is neceſſary to paſs from one end to the other, exhauſt the ſtrength ſo much, we have not always enough of it remaining, to obtain a ſight of thoſe objects which merit our attention moſt; whereas the Glaciers of *Savoy*, have not ſo many of theſe inconveniencies: they are nearer to each other, and they offer in the ſpace of a few leagues only, a multitude of objects, as extraordinary, as they are delightful.

It was on my return from this laborious journey to the Glaciers of *Berne*, and *Vallais*, that I re-entered the valley of *Chamouni*. The *Montanvert*, and the *Breven*, which I again aſcended, have afforded new obſervations concerning the annual accumulations and increaſe of the ice, as well as of the manner in which theſe Glaciers are formed.

The firſt time of my aſcending Mount *Breven*, I was aſtoniſhed at the quantity of ſnow and ice that covered the foot of the Needles; but I was now more ſo*, to behold *three* new Glaciers, well formed, and already very conſiderable; to ſee the whole extent I had gone over two years before covered with ſnow and ice, as well as the little lake, upon the banks of which we had ſo comfortably reſted. The Glacier *des Pelerins* was likewiſe conſiderably enlarged, and offered at its baſe, a proſpect, which does not yield in point of beauty to the Maſs of the *Arveron*. The accumulation of this ice reſembles a city of cryſtal, and has this peculiar advantage, that it is not bounded in with broken rocks, but ſituated amidſt lofty woods, and fields, and paſtures, which afford the moſt delightful verdure. The Maſs

* Theſe obſervations will be more ſtriking to thoſe who have already peruſed this relation, and have formed an idea of the places here mentioned.

Maſs of the *Arveron* which I likewiſe reviſited, was augmented about forty feet, and although this was in the middle of Auguſt, the Dome was not yet diſcoverable.

Let any one now repreſent to himſelf the proſpect of eight immenſe Glaciers, in ſucceſſion, ſuſpended above a valley of no more than ſix or ſeven leagues in length; let him imagine them ſurrounded with the moſt agreeable and tender verdure, intermixed with crops of wheat and barley; and when he reflects that theſe Glaciers are ſending forth a thouſand rills, not leſs agreeable, than ſalutary and uſeful for the neceſſities of man, what ſubjects of meditation and gratitude do they afford, towards that infinitely good and gracious Providence, ſo fruitful in means, ſo powerful in effects, and ſo admirable in all his works!

But if carrying our thoughts to their original, we conſider how theſe fields of ice have gradually been conſtructed, we ſhall not be leſs affected with the contemplation of their ſmall beginnings, than their vaſtneſs in completion. A view of theſe prodigious objects, ſtrikes, aſtoniſhes, and confounds the imagination. That collection of overwhelming waves, heaped upon each other, which we ſee from *Montanvert*, has more than once obtained the moſt brilliant hypotheſes; but the obſervation of their ſlight commencement diſpoſes to Reflection, and conducts more ſurely to the truth.

I now experienced this upon the *Breven*, Two years before, I found but little ſnow upon that mountain: there was a conſiderable quantity in my laſt journey. I croſſed over large maſſes which hung upon a ſteep ſlope, and had already taken the form of thoſe waves of ice, in the valley of *Montanvert*; and theſe waves which aſſiſted

aſſiſted us in treading ſafely, have here no other cauſe than the winds which blow down in guſts over the tops of the *Needles*. This is what the moſt inconſiderable inhabitant of *Chamouni* is capable of demonſtrating: But the very *ſame* cauſe which operates on the *Breven*, operates at *Montanvert*, at the Glacier *du Tour*, and at that *des Pelerins*, in a manner ſtill more ſenſible; theſe Glaciers being more directly under the gullies or openings between their tops. The winds then are a *principal* cauſe, perhaps the only one, of the precipitation of theſe little hills and ridges of ice; they muſt neceſſarily operate more in proportion to the ſteepneſs of the deſcent; and it is for this reaſon, that the higher we advance upon theſe valleys of ice, the more the beds or ridges are united, till they become entirely ſo at the higheſt part of the valley, and continue thus to its extremity.

It is not only in the valley of *Chamouni*, that I could judge of this effect of the winds; but even upon the Glaciers and maſſes of ice, both in the *Pays de Vallais*, and in *Switzerland:* I ſhall give only one inſtance.

To the eaſt of *Grimſel*, a very lofty mountain which conſtitutes the eaſtermoſt boundary of the States of *Berne*, and of the *Pays de Vallais*, there is a valley of ice, the largeſt, the moſt elevated, and the moſt beautiful one can imagine. At the top of this Glacier are diſtinguiſhed thoſe furrows, which point out the accidental direction of the winds. The waves begin at a little diſtance from the opening of the gulleys, and gradually increaſe by reaſon of the deſcent of the Glacier, which offers us at its bottom a collection of ice that is prodigiouſly grand and ſtriking.

It is from this magnificent Glacier that the *Rhone* takes its ſource. Sitting here at the foot of this immenſe maſs of ice, with a view of deſigning it, I was prevented by a very ſtrong, direct and regular wind, which it was difficult to oppoſe, and whoſe cold was moſt exceſſively piercing; but it loſt of its force, in proportion as I retreated farther from the baſe of the mountain, till at laſt I perceived no more of it; the weather in the mean time was remarkably fine, and the ſky entirely diſengaged from clouds.

The winds then which labour *continually* to paſs theſe elevated gulleys, ſometimes plunge to the foot of the mountains with more violence and fury, than the hurricanes that ravage our plains; and the hollows which they form are very eaſy to be diſtinguiſhed. They raiſe new ice over the old, add projections to that which before was even, and ſeem to give

give the whole aſſemblage of waves a progreſſive movement and activity, which impoſes upon our ſight.

SUCH is the principal cauſe of the form which the ice takes upon the Glaciers, and of its accumulation at their feet. Thoſe of *Chamouni* ſeem to prove it. Towards whatever point of the compaſs a Glacier is ſituated, we at all times find the wind blowing directly down upon us from it; and as this is the caſe with every one of them, however oppoſite, it accounts for that variety of their ſhapes, the firſt ſight of which ſtrikes us ſo wonderfully.

AFTER this digreſſion upon the ice in general, (which is not ſo ſatisfactory I own as might be wiſhed, but which the ſubject ſeem'd to call for, and may poſſibly afford ſome hints to others;) I think I ought to inſert an obſervation of Mr.

De

De Rohan Chabot*, which he mentioned to me at *Chamouni*. I have ſaid in my relation, that the valley of *Montanvert* is only a quarter of a league broad; but this gentleman has obſerved, that at the foot of the *Dru*, there are ſeveral large paſtures covered with herds of cows, which the eye can hardly diſcern from the oppoſite ſide: this obſervation leads us to eſtimate the breadth of this valley to be at leaſt three quarters of a league; and in fact when I was the laſt time upon *Montanvert*, I found the obſervation to be juſt. I was deceived by appearances that impoſed upon every perſon preſent; the mountains which ſurround this valley being ſo immeaſurably vaſt, that the eye is not able to eſtimate its general *extent* with a ſufficient degree of exactneſs; the air likewiſe, on account of its purity, does not ſend off objects ſo far, as below upon the plains, but brings them forward by

* Count of Jarnac.

by their brightneſs, and thus contributes to the illuſion: they were theſe very cauſes which continually deceived us in our walk along the *Needles*.

It is certainly a very great miſtake likewiſe in any perſon, to ſuppoſe it poſſible for him to aſcend Mount *Blanc*: if its top, diſcovered from *Chamouni*, does not ſeem to advance ſo much, it is becauſe Mount *Blanc* does not ſhew itſelf *there*, what it really is, on account of our being too near its baſe*. That this is the true cauſe is evident from the following circumſtances, that ſo far from appear-

* For the ſame reaſon that it is impoſſible to judge of the height of the Monument in London, from the diſtance only of a ſtreet's breadth; but fifty ſuch buildings placed upon each other, would fall very far ſhort of the height of Mount *Blanc*, from its baſe in the valley of *Chamouni*; the utmoſt length of which valley is not more than between ſix and ſeven leagues, and whoſe breadth does not any where exceed three quarters of a mile.

appearing lower, when we are upon Mount *Breven*, it ſeems on the contrary to raiſe itſelf in proportion to our elevation; and it is but three leagues from *Chamouni*, that it appears in all its majeſty. I have ſeen Mount *Blanc* from the *Fourke*, at the diſtance of more than a hundred miles; it there appears to riſe ſo much above the chain of the *Needles*, that they ſeem only like a bank of ſnow at its foot.

If hitherto the ſeveral deſcriptions which have been given of the maſſes and valleys of ice which one ſees at *Chamouni*, ſtriking as they are, have rather deterr'd travellers from viſiting it, than encouraged them, the reaſon is, becauſe it is not eaſy to connect the ideas of rocks, and precipices, and ice, with thoſe of beautiful, extenſive woods, rich enamell'd paſtures, fields, and gardens finely cultivated; whereas in reality, this country

country ſo far from being horrid, invites us even by its elegance and gaiety: it is beſides extremely healthy, and its waters are good; its warmth, it is true, is conſiderably abated by the neighbourhood of the ice; but thoſe who know the quantity of excellent honey ſent annually from *Chamouni*, (which begins to be preferr'd even to that of *Narbonne)* will have no doubts about the agreeable temperature of this valley; and excepting ſome few openings of a ſavage aſpect through the mountains, the journey is not ſo difficult, ſince they have begun to mend the roads. In ſhort, the inhabitants are civil, and not uninſtructed, they behave with much propriety in converſation, and there is hardly any country in Europe, where good faith is ſo general as here. What I have ſaid of the honeſt people at *Chamouni*, is applicable to thoſe in every other part of *Savoy* I have travelled over. The inhabitants of *Cluſe*, and of *Sallenche* in particular, have a native ſweetneſs

and

and complaiſance in their behaviour, which renders them extremely ſociable; and all *theſe* diſtricts have the happineſs of living under a very moderate Government, which protects and leaves them to enjoy in ſecurity the fruits of their labour.

JOURNEY

JOURNEY

TO THE

GLACIERS

OF

SAVOY.

GENERAL DESCRIPTION

OF THE

Valleys and Glaciers

SITUATED IN

The PROVINCE and BARONY of

FAUCIGNY in SAVOY.

THE view of Nature in her ſimpleſt and moſt uniform appearance, never fails to have its effects upon an attentive beholder; ſuch impreſſions become more agreeable, as the objects which excite them are more varied; and that rich diſplay

play of beauty, in her *leſſer* elegant Deſigns, induces a ſerenity of pleaſure, which is ſtill more captivating: but of all the pictures ſhe preſents us, thoſe of mountains covered with eternal ſnows, whoſe ſummits reach beyond the clouds, and whoſe forms are ſo majeſtic, are by far the moſt affecting, as they fill the mind with an idea of her grandeur and ſublimity.

It is eaſy for a man of taſte to add to and embelliſh works of art, which he propoſes for his imitation; but his utmoſt efforts muſt fall ſhort of equalling the greater models of Nature herſelf. This obſervation will be verified particularly here, where greatneſs and beauty are ſo exquiſitely united in the ſame piece, that the utmoſt powers of *Deſcription* can excite but a very faint, imperfect repreſentation of the inimitable originals.

THE ideas men are apt to form of diſtant countries, from the relations of Travellers, are generally raiſed *above* the truth: their ideas of the Alps are univerſally *below* it: except the common paſſages by *France* into *Italy* and *Germany*, the reſt are almoſt wholly unknown to ſtrangers; thoſe eſpecially which are in *Savoy*. The productions of the country draw but few perſons into it: the difficulty of the roads, the ſtraights which muſt be paſſed, to go from one valley into another, inſulate (if I may uſe the expreſſion) their different inhabitants: and the moderation of their deſires, which are bounded almoſt by the *neceſſaries* of life, prevents even a wiſh to go beyond their limits. There are indeed ſome few perſons among them who are drawn into the world by commerce; but theſe, familiarized to objects conſtantly before them, in the places where they have been witneſſes of their production, and leſs attentive probably to their forms, than to the incon-

inconveniencies ariſing from them, ſet very little value upon their beauties: with reſpect to the neighbouring people in general, who live on the outſide of theſe Valleys, as the mountains which environ them, offer nothing to their ſight but rocks and ice, they have not the leaſt inclination to approach them out of curioſity.

At the ſame time how many ſcenes are there highly worthy of our attention! fertile ſmiling valleys, rich delightful hills, beautiful and even extenſive proſpects; what variety of different forms! Here a level country finely cultivated, riſing hills with farms and villages, and higher over theſe a ridge of mountains: on the other hand, luxuriant meadows interſected by the *Arve*, which breaks into a number of channels; whilſt the eye conducted through the natural openings as through artificial viſtas, travels on directly to the diſtance; or we look above the

tops

tops of neighbouring woods, that ſloping from our feet, wind down into the bottom of a dale.

THE farther we penetrate, the more we are delighted with the beauties of this romantic region. The views become ſtill more and more engaging as we advance; every valley appears like a new country from its different form; overhanging rocks of a prodigious height, and torrents pouring down in ſheets from their very ſummits, are ſuch wonders of Nature, as it is impoſſible to look upon without a mixture of aſtoniſhment and awe; to heighten the picture, we may add the different tints of rocks and mountains, their contraſt with the browner colour of the woods, and the whiteneſs of the ſnow and ice, eſpecially when enlightened by the ſun; their tops at ſun-riſe taking the ſimilitude of melted ſilver, and at his ſetting that of gold, whilſt the refractions of his rays by their

angles, ſometimes offer ſuch variegated ſplendor, as exceeds deſcription.——

Mille trahens varios adverſo ſole colores.

THERE is ſtill a ſingular emotion which the ſight of this country excites in the mind, from the prodigious height of the mountains, which ſurround theſe valleys on every ſide. Mount *Blanc* eſpecially, produces a ſenſation which is very difficult to explain. An obeliſk of one hundred yards, appears of a prodigious height, yet we can form a tolerable idea of it from recollection or imagination only; but when that height is thirty or nearly forty * times increaſed, upon a baſe proportionably maſſive, which yet the eye can take in at one view, the mind is almoſt loſt in the ſublimity of its own

* The height of Mount *Blanc*, from its baſe in the valley of *Chamouni*, falls little ſhort of four thouſand *Engliſh* yards.

own idea, and no tongue whatever is capable of deſcribing, and conveying juſtly to others, the ſucceſſively humiliating, elevated, awful feelings of the ſoul, upon the ſight of ſuch an object.

SUCH are the beauties of this country, which would probably have ſtill continued unknown, but for the rude relations of its peaſants, who bring us annually their honey and their cryſtals. The frightful picture which they gave us of their valleys of ice, and of their ſtupendous mountains, thoſe extraordinary accounts, (which procured theſe ſnowy precipices the appellation of *Les Montagnes Maudites* *) excited the curioſity of two *Engliſh* gentlemen †, who reſided ſome time ſince at *Geneva*.

* The accurſed Mountains.

† The late Colonel *Windham*, of *Norfolk*, and Mr. *Pocock*.

It was in the month of June 1741, that they undertook this journey, well mounted and armed, as if they were going into an enemy's country; they had the precaution likewiſe to take with them, not only ammunition, but proviſions and baggage, and encamped in the open air, near *Sallenche*. There are ſtill ſome people at *Chamouni*, who remember to have ſeen them under their tents, (which were pitched in a meadow by the banks of the *Arve*) and keeping a ſtrict guard round their little camp; a ſpectacle this ſo new and ſingular to the good people of the country, that their wonder and aſtoniſhment at it, contributed not a little to the amuſement of our Travellers.

The happy return of theſe gentlemen without any diſagreeable accident, and the deſcription which Mr. *Wyndham* gave of their journey, excited the curioſity of others to follow their example: but all theſe Travellers contented themſelves with

with going up to *Montanvert*, deſcending into the valley, and walking a few paces upon the ice. It was reſerved for Mr. Profeſſor *De Sauſſure*, to be the firſt who ſhould have the courage and reſolution to penetrate acroſs the ice, to the very extremity of the valleys.

His various and extenſive knowledge, which he poſſeſſes in ſo eminent a degree, rendered his remarks intereſting, and occaſioned a deſire to have them publiſhed, particularly thoſe which relate to the natural hiſtory of thoſe places.

ROUTE

FROM

GENEVA to SALLENCHE.

THE Glaciers we are going over, are ſituated to the north eaſt of *Geneva*, at the diſtance of about ſixteen or twenty leagues, and are ſurrounded with the higheſt, and moſt rugged of all the mountains of the *Alps*, namely, thoſe which continue the chain from Mount *Ceny* to great *St. Bernard*, and from whoſe ſummits, if they were acceſſible, one might diſcover the plains of *Piedmont*. The moſt favourable time for this journey

is

is in the end of July, or the beginning of Auguſt; for at this ſeaſon the lateſt ſnows being generally melted, leave the dangerous paſſages diſcoverable. If the traveller thinks proper, the journey may be made on horſeback, or even in a carriage as far as *Sallenche*; but he cannot poſſibly have the pleaſure of ſeeing and obſerving every thing that merits his attention ſo well this way as on foot; beſides that he muſt neceſſarily be ſubjected to great precautions; and it was for theſe reaſons, that we made choice of the latter manner of travelling, in preference to the other.

FAVOURED therefore by the weather, we ſet out from *Geneva* early in the evening, and laid at *Bonneville* that night. This route, which is but five leagues, is both ſafe and entertaining.

BONNEVILLE, ſituated at the foot of *Mole*, between that mountain and the

river *Arve*, is the capital of *Faucigny*, where the Intendant of the capital reſides. As it was night when we arrived, the place appeared to us extremely agreeable; a fountain in the middle of a large ſquare planted with trees, and ſurrounded with houſes which ſeemed tolerably handſome, their windows enlightened, and the people civil and polite, all contributed to give us a grand idea of the place; but the morning robbed it of a part of thoſe beauties, which we thought it had poſſeſſed. The houſes were large indeed, but rather in decay; the principal church, though great, is in a bad Taſte, and that of the *Barnabites*, though tolerably elegant, is very ſmall. Their convent is the fineſt building in the city. A bridge over the *Arve*, which we croſs at this place in our way to *Cluſe*, is large, maſſy, and well built, conducting us by the footway into a valley about half a league wide, and twice as long, through which the river winds its courſe, and on each

ſide

ſide of whoſe banks are meadows covered with ſhrubs, and bounded by lofty mountains enriched with woods. After an hour's walk, the country opens, and forms an agreeable plain of an oval figure, the ſhorter axis of which may be about two leagues, the longer three: it is here that the *Arve* and *Giffre* meet. The *Giffre* is a river, which, taking its riſe from the melting of the ice at the Glacier of *Buet*, runs by *Taninge*; it ſwells exceedingly upon a fall of rain, and abounds with trouts, ſome of which are caught that weigh fourteen or fifteen pounds each. This part of the country is reckoned to be the moſt fertile, and beſt cultivated of any in *Savoy*. We meet no ſhocking ſcenes of want and poverty, and every one appears ſatisfied with his condition. The women are handſome, and dreſs neatly, and moſt of them wear a ſmall ſtraw hat, which gives them a genteel air.

We ſtopped a little beyond *Songy*, a village about a quarter of a league in length, where there is a tolerably handſome church; and, generally ſpeaking, we found this route very pleaſant. The road from *Songy* to *Cluſe* is highly entertaining: The moſt engaging points of view; hills delightfully enriched, ſloping downs, and ridges of the fineſt verdure, with the country houſes of citizens, which catch the attention at a diſtance, and enliven all the landſcape, ſufficiently compenſated our labour; even the mind itſelf found a moſt agreeable repoſe from the ſight of this valley, bounded in by lofty mountains: It ſeemed to us a little world apart, where nothing was wanting to the happineſs of man.

Arrived near *Cluſe*, we paſſed by the foot of a rock, which appears as it were ſuſpended above the road, and whoſe brow is overhung with trees. It is reported that in this place the inhabitants of *Cluſe* once defeated

defeated a party of foreign troops, by rolling down ſtones upon them from the mountain. Farther on, we find a bridge acroſs the *Arve*, but in a ruined ſtate and condition, and near it is a path cut in the rock, by which the traveller is conducted to *Annecy*; its top commands a view of the whole valley, and even that of *Geneva*, which is ſeen through an opening between two mountains.

CLUSE is by no means handſome, nor has it much the appearance of being wealthy; its principal inhabitants are Watchmakers, Joiners, and Shoemakers, but no people of faſhion reſide here. The town was formerly under the government of *Savoy*, poſſeſſed of the higheſt privileges, and was the capital of *Faucigny*. A conflagration, which left very few of its houſes ſtanding, occaſioned part of the inhabitants to remove to *Bonneville*, with the Intendant of the Province where he ſettled; but the town has ſince been rebuilt.

THE

THE *Cluſians*, who reckon about three hundred families, pretend that their town is better peopled than *Bonneville*, which may be the caſe, though it is not ſo extenſive; but the ſtreets and houſes here, are not to be compared with thoſe of *Bonneville*. The freeedom of this corporation may be purchaſed for the amount of only a hundred livres of *Piedmont*, which gives the right of trading in cattle and other commodities, without paying the duties and bridge-tolls, as far as *Suze*. The Count *De Remilly* was deſirous of aboliſhing this privilege, exacting the ſame duties from its burgeſſes as from ſtrangers: an action was brought, and the affair argued in court. The Count has ſince acknowledged the right of ſuch as ſtaid in *Cluſe*, but is unwilling to allow the right of thoſe at *Bonneville*, and the matter is ſtill in litigation.

THE reſidence of many of the inhabitants likewiſe in the country at a conſiderable

rable diſtance, where the comforts they enjoy are ſo much beyond thoſe of towns, would ſoon have made them forget their fellow citizens the *Cluſians*. Theſe were ſenſible of it, and conceived the only means of recalling them would be by inſtituting patriotic Feſtivals and Games; and ſuch in fact is their influence upon the heart, that they aſſemble to them from all parts. Every year, upon the ſecond feaſt of Pentecoſt, the citizens in arms, and in their uniform, meet *to ſhoot the bird** upon a very high rock. He who brings it down is acknowledged Abbot of the

* This bird is uſually of wood, about the ſize of a pigeon, whoſe breaſt is covered with a plate of iron, but perforated ſo as to be looſely placed upon a ſhort ſpindle, at the end of a maſt upon an eminence. Conſiderable honours and emoluments are given in many towns of *Switzerland*, to the perſon who brings it down with a ſingle bullet: At *Lauſanne* and *Lutry*, upon the lake of *Geneva*, beſides a reward of twenty crowns, it intitles him to an exemption from a tax upon

the *Baſoche*, and the firſt uſe he makes of his power, is to create a free man.

THE management of the affairs of this city, is veſted in a council conſiſting of four ſyndics, and twelve counſellors, who govern by *written* laws. *Cluſe* has ſtill a *Marquis*, but who can claim no other privilege, than that of having the tongues of all the cows and oxen that are killed there. I ſhall conclude what I have to ſay of this place, with obſerving that the city is not to be diſcerned till you are upon it. It hath before it the large ſweeping

upon the purchaſe of an eſtate, provided the purchaſe be made within a year; and he has moreover the privilege of exempting one friend from the ſame payment; which advantages go on to the victor at the next annual feſtival. The reader probably has anticipated a compariſon of the ſimilar exerciſe, in honour of *Patroclus* and *Anchiſes*. It may nevertheleſs be remarked in favour of the *Cluſians* particularly, that the modern inſtitution is ſuperior in its motives, more humane in its exerciſe, and more honourable in its rewards.

ing * valley I have mentioned, of an oval form, behind it and on one ſide lofty mountains, which project, and ſeem to meditate its deſtruction.

At our departure from *Cluſe*, one would have believed it impracticable to go to *Sallenche* without croſſing the mountain, and we were ſurprized to find a plain level road, running in a narrow defile, between high mountains, that form almoſt a dome above it: the paſſage between them is filled up by the *Arve*, and the road through which we paſs; but it opens inſenſibly; the River enlarging forms a variety of ſmall iſlands, and in ſome places there are meadows between the road and the *Arve:* the farther we go on, the more the objects are diverſified: we meet with rocks cut perpendicularly down their ſides, whoſe firſt appearance gives us an idea of ſome venerable antique building, orna-

* Page 14.

ornamented with cornices and mouldings; again we come at maſſy fragments, which obſtructed in their fall by others, form in the ſuſpenſion vaults and caverns, that are overgrown with ſhrubs and buſhes: add to this the tread of travellers, the ſound of whoſe ſteps is many times re-echoed, and the trotting of a ſingle horſe ſo multiplied, that one might eaſily ſuppoſe there was a detachment of cavalry coming up upon full march.

But what chiefly merits our obſervation in this route, is a moſt magnificent cavern, which the ſun never enters, and which is hollowed into the middle of the mountain above *Balme*, a hamlet about a league from *Cluſe*.

To arrive at it, we were obliged to climb this mountain, over thickets or rather underwoods, to the foot of the rocks. After ſeveral fruitleſs attempts to get up, we

we availed ourſelves at laſt of the branches of a nut-tree that hung over, which we juſt managed to catch hold of, and placing our feet upon the end of a pole, held up by one of our conductors to the cavern, by this means gain'd the top. What ideas did the ſight of this place afford us! Its front preſents a large portico formed by the rocks, with two entrances; that on the left pretty high, but which goes in, only a few paces; whereas the other on the right ſinks into the body of the mountain, and the ſhadows gradually deepen, till the ſight is terminated by abſolute darkneſs.

PREPARED to enter it, we lighted ſeveral flambeaux, and followed our conductors under the arch: a paſſage at firſt of a conſiderable width, but narrowing after we had advanced about fifty yards, led us into chambers of a very ſingular form, the ſides of which were covered with a ſhining varniſh, and glittered with a thou-

a thouſand colours; croſſing theſe chambers we came to a magnificent kind of chapel, formed by the hand of nature, crowned with a cupola of bold conſtruction, and ornamented with a variety of figures: we find here ſtalactites of different ſorts, jets of a very hard ſubſtance, but brittle as glaſs, and tubes, ſome of which are opaque, and others tranſparent: the walls in turn are likewiſe decorated with variety of ornaments, yet ſo admirably, though accidentally, ſuited, as not to interrupt a Unity of ſtyle which is throughout the whole *.

In

* The peculiar ſuitableneſs, as well as a conſiderable portion of the beauty of theſe ornaments, is rather to be ſought for perhaps, in the *elegance* and *harmony* of the Author's own mind, than in the objects themſelves. In all his deſcriptions, he diſcovers that luxuriance and enthuſiaſm of fancy, which without inſtructions have conſtituted him the *Painter* and the *Muſician* of Nature.

In one part again, we have columns on their pedeſtals, others overturn'd, or ſeemingly ſuſpended, whilſt others repreſent in a very pictureſque manner, the ruins of a magnificent palace. Turning to another part, you might fancy yourſelf in an arſenal, with a profuſion of arms ranged in different forms, diſcoverable by their ſplendor; and on every ſide almoſt, were brilliants, which ſparkling at the different movement of our lights, ſtill aided the aſtoniſhing variety.

After having attentively conſidered, and always with a freſh aſtoniſhment, the beauties which this place repreſented, we again went forward; and now counting up our ſteps, and finding that we had advanced about four hundred paces, our conductors recommended us to be more cautious how we went on, as we were approaching to a very deep hole in the middle of the cavern, of which indeed the

the hollow ſound of our voices gave us notice. Arrived at its brink, we ventured to throw down a lighted grenade; ſurprized at not immediately hearing the effect, we were prepared to repeat the ſame experiment, when after a minute and a half's expectation, we were aſtoniſhed with the loudeſt report imaginable: happily for us, there were ſome flambeaux at ſuch a diſtance, as not to be affected by the exploſion, which extinguiſhed all thoſe that were near; even the thick volumes of ſmoke which came up from the bottom, might alone have been ſufficient to extinguiſh them; but taking the precaution to carry ſome lights farther off, the experiment may be made without danger.

FROM this abyſs we advanced four hundred paces farther into the mountain, till ſtopped by the waters, we were obliged to return back the ſame way we came. There are in many places heaps of cryſtalized

talized matter, of a pyramidal figure, which ſometimes interrupt the paſſage, and theſe heaps or maſſes, which are formed by water dropping from the top and ſides of the cavern, may in time wholly ſtop up the road. Such was the effect of our long ſtay here, that at firſt coming out of the mountain, the air appeared to us of an extraordinary ſplendor, and to vibrate as from a conflagration in the night.

After warming ourſelves in the ſun, we deſcended the rock by the ſame means we had employed to aſcend it, ſome of our conductors being ready to receive us below. We then croſſed the reſt of the mountain through woods, with much labour, and were often under a neceſſity of ſliding down the declivity of hills, not without ſeveral falls, in which ſome looſe fragments of rocks join'd the party: to ſave himſelf trouble, one of the company rode down upon a large ſtone, which carried

ried him ſafe to the bottom. The time we ſpent in examining this cavern was at leaſt four hours. After taking a little repoſe at *Balme*, we continued our journey in the road to *Sallenche*, which offered us different objects, and procured us new pleaſures.

FROM the foot of a beautiful caſcade, we had the view of a large and lofty mountain, ſeated upon a baſe finely cultivated; lower down were meadows, corn fields, woods, houſes, which ſeemed to conteſt the pleaſure of delighting us; whilſt ſeveral little iſlands formed by the *Arve*, cloathed with a verdure which ſets off the whiteneſs of its ſands, and the valley of a conſiderable extent, offer to the man of taſte and ſentiment, a compoſition of objects that touches him, and gives his mind a ſatisfaction and a pleaſure, which may be felt much better than it can poſſibly be deſcribed.

AT

At ſome diſtance from this ſpot, we paſſed the village of *Magland*, the moſt agreeable we had yet ſeen. The women of the place, who are handſome, added to the agreeableneſs of it, and the graceful ſimplicity of their manners, ſtill heighten'd the beauty of their perſons. The inhabitants are tradeſmen, who enjoy every convenience.

A LEAGUE farther, we contemplated with ſingular pleaſure the fine caſcade of *Nant d' Arpenaz*. It is a torrent which falls from the ſummit of a mountain with a prodigious noiſe, amongſt rocks remarkable for their colour of muſk and ocre, and for a concentric form, that ſerves as a direction to the ſheet of water, which nevertheleſs is detached almoſt to the bottom: this water, diſengaged from the mountain by projecting rocks, falls perpendicularly upon a flat ledge that divides it

it into a number of branches, and forms in ſhort the moſt beautiful caſcade *. If there

* Its fall from the top of the rock to the bottom, is ſaid to exceed eleven hundred Engliſh yards.

Upon reading the deſcription of this caſcade with a gentleman who is perfectly ſkilled in the *Welch* Language †, he was little leſs ſurprized at the name of it, than at its extraordinary height; *Nant* in that language ſignifying a *Brook* or *Rill*, any ſtream of water that is not large enough to come under the denomination of a River. As this obſervation favours the opinion of the *Welch* Language being derived from the *Gauliſh* or *Celtic*, we have taken the liberty to add an extract of a letter upon this ſubject, which was written in the year 1771, to a perſon whom it is our higheſt pleaſure as well as duty to honour.

" *The long conteſt among the learned, when and* " *by whom* Switzerland *was firſt peopled, ſeems at* " *length to be detremined in favour of the* Galli, *or* " Celts, *eſpecially with regard to the* Pays de Vaux. " *Moſt of the names of towns and villages in the* " *Canton of* Berne, *have been lately analyſed by a* " *learned author, who has found that their Etymo-* " *logy,*

† The Rev. Mr. Pryſe of Norwich.

here happen to be but a ſlender ſtream, nd the wind is high, one ſees it ſeparat-

D ed

logy, traced in the Celtic, *gives in general a de-ſcription of the ſituation of each particular place, by its vicinity or relation to ſome* Mountain, Spring, *or* River, *with reſpect to the general fertility of the ſoil, or the uſual products of its lands.*"

"*He has endeavoured to carry his reſearches farther: to determine from what places, and into what parts the firſt* Helvetians *emigrated, after they came into this neighbourhood; and the names of towns ſtill ſerving as a clue, he has found that villages, which with regard to their ſituation, had any thing analogous to thoſe in the ſouth of* Switzerland, *were in* Berry, Poictou, *and* Tourain, *called by names almoſt perfectly ſimilar. —Whatever degree of credit may be due to this kind of etymological proof, one cannot help being prepared by it to believe any inſtance of the* Fact, *which is ſaid to ſubſiſt at this day in the North of* Italy. *The mountainous face of this country, renders it as proper to preſerve an ancient dialect, as that of the Alps, in the neighbourhood of* Verona, *and the ſame cauſe has produced the ſame effect. — Among the patois of the Canton of* Berne, *are re-*

"*maining*

ed from the mountain, and waving like a ribband lightly agitated; and it was in this

" *maining to this day, not only ſome words purely*
" Latin *or* Greek, *but many abſolutely* Celtic. *There*
" *is a difficulty to account for the* Greek *words in par-*
" *ticular getting thither, but after all, it is poſſible*
" *that theſe might be* originally *Celtic. A Welſh*
" *gentleman who paſſed through the mountains of the*
" *Canton of* Berne, *in order to ſee the* Glaciers, *aſ-*
" *ſures me, that the* Mountaineers *ſtill uſe many*
" *words that are purely* Welch. *Theſe examples*
" *ſerve to confirm me in the opinion, that the* Celtic,
" *of which the* Welch *is a Dialect, ſaid to differ*
" *little from the mother* tongue, *was the language at*
" *leaſt of all the ſouth-weſt countries of Europe.*"

It may be obſerved from what is ſaid by the ingenious writer of this letter, how uncertain the poſition is, that the *Welch* in *Bretagne* are deſcended from *Britiſh* Emigrants about the fourth century: There were probably ſome Deſcendants of the firſt Celtic Coloniſts, who ſettled in *Tourain* and *Poictou*, then remaining, who might long before that time have croſſed the *Loire*, in the neighbourhood of *Nants*, and ſettled in a collected body in *Bretagne*, where they were joined

his agreeable form we had the pleaſure of ſurveying it. Arrived at the village of *St. Martin*, not far from *Sallenche*, we croſſed the *Arve* again by a ſtone bridge of a moderate ſize. An inſcription imports, that having been thrown down in the year 1733, it was rebuilt in 1736.

oined by their brethren from this kingdom, whoſe anceſtors might have embarked from the coaſts of the ame province into *Cornwall*, *Wales*, *Ireland*, and he Iſle of *Man*, and from thence probably into *Scotland*, in all which places, ſiſter dialects of the *Celtic* ontinue ſo many living languages to this day.

ROUTE

FROM

SALLENCHE to PRIEURE,

IN THE VALLEY OF

CHAMOUNI.

THE city of *Sallenche*, where we lodged, and which is upon the right of the *Arve*, in aſcending towards its ſource, is in an agreeable ſituation. The people of *Cluſe* maintain that this city is inferior to theirs, but the pretenſion is inexcuſable only in a native of *Cluſe:* for *Sallenche*

che is not only more agreeable, but alſo more extenſive. The church here is the largeſt of all we have ſeen in *Faucigny*; it contains ſome tolerable pictures, and rich ornaments, ſeven altars well decorated, and a kind of cenſer or ſilver gilded, weighing ſeven pounds, which was preſented to them by a German.

THIS city was formerly only a hamlet inhabited by a few tanners, but has gradually increaſed, and eſpecially as they tell you ſince the deſtruction of a city, which was about a league diſtant, called *St. Denis*. The Burgeſſes of *Sallenche*, are Lords of their own Seigniory; the freedom of the city may be purchaſed for thirty livres, but coſts fifteen more for the regiſtering. It forms two fraternities, that of *St. Rac*, and that of *Sallenche*, and is divided into four quarters; the firſt trades with *Geneva* and *Switzerland* in cattle, the ſecond in cloth and wool, the third in different utenſils of iron and cop-

per, and the laſt furniſhes carpenters, maſons, and domeſtic ſervants, for every department; theſe for the moſt part go to ſerve at *Paris*, but as ſoon as they have acquired a moderate competency, return again to ſettle in their own country.

SALLENCHE has ſeveral very conſiderable fairs, particularly for cattle; and the inhabitants of the neighbouring villages are frequently collected here, to the number of eight or nine hundred. The corporation is governed by a council of twenty-four, with four Syndics at their head, and their Preſident muſt always be a Gentleman. The chapter has been founded almoſt ſevenhundred years, it is compoſed of twelve Canons, and four ſuperior dignified Prieſts; the Dean is a perſon highly reſpected. This chapter is rich, having in its poſſeſſion the lordſhips of ſeveral villages and diſtricts, among which is the valley of *Chamouni*. There is moreover at *Sallenche*, a convent of religious *Urſulines*, and one of *Capuchins*; the latter is near the

the road, and hath on the outside a chapel dedicated to our Lady of Consolation, under whose statue we read this inscription:

Vous que le Ciel couronne, & la Terre revere,
Fille du Tout-Puissant, & Mere de son Fils.
Vous qu'il daigna lui-meme appeller notre Mere,
Daignez de vos enfans ecarter les perils.§

A RIVULET, which they call *Sallenche*, flows by this city, and falls into the *Arve* below the bridge which I mentioned our having crossed. In going to the valley of *Chamouni*, it is necessary to repass it, and follow the course of the river, which ex-

 panding

§ The English reader may form some idea of Popish Divinity, from the following almost literal translation of these lines.

O Thou, whom Heav'n doth crown, and Earth revere,
Th' Almighty's Daughter, Mother of his Son,
Thou whom he deign'd to call our Mother here,
Protect thy children, and the Mother own.

panding itſelf here conſiderably, forms ſome large iſlands.

In the tradition of the country, this valley was formerly a lake; and its appearance renders it not at all improbable. The land is for the moſt part ſtill a marſh, and *muſt* continue ſuch, ſo long as the *Arve* is without regular mounds to confine its channel.

Departing a little from the courſe of the ſtream, we meet with ſeveral ſmall hills covered over with ſlates, which the peaſants make uſe of as tiles. The oppoſite bank is well cultivated, preſenting a very agreeable proſpect; there are ſome lands laid out in vineyards, but the richeſt villages and diſtricts, are thoſe which have none, whoſe inhabitants live upon the product of their milk and their cattle.

In proportion as we advance, the landſcape puts on a new face, and the oppoſite bank no longer ſhines upon us. We have mountains before us covered with dark firs, and lands which the *Arve* alternately overflows and deſerts; yet theſe form no unpleaſing contraſt to the tillage, the meadows, and the habitations upon our road; and ſet off the little village of *Paſſi*, which appeared to us far from being an unpleaſant place. The lovers of antient monuments will not be diſpleaſed to read the two following inſcriptions, which being found when the church was building, they have worked into the porch. They are in a fair character, and ſeem to have been written about the Auguſtan age.

MARTI
A. ISVGIVS. A. F.
VOLTVATVRVS
FLAMEN, AUG
II. VIR. AERARI.
EX VOTO

MARTI. AVG.
PRO. SALVTE
.L. VIBI. L. FIL
FLAVINI.
L. VIBIVS. VESTNVS.
PATER
II. VIR. IVR. DIG.
III. VIR. LOCP. P.
EX VOTO.

THUS far we had travelled without a guide upon the journey, but the ways which from this village begin to be more perplexed, obliged us now to take one, under whoſe conduct we ſtruck acroſs ſome meadows and vineyards, by a path which conducted us to the public road. Our route was no longer over a plain country, we were conſtantly obliged to aſcend and deſcend alternately; but although this was fatiguing to us, the different objects which offered themſelves to our view had a ſpirited beauty, which made us ample

ple amends. The road is often overſhadowed with trees; we meet with brooks of the cleareſt and moſt refreſhing water, and paſſed ſome torrents, whoſe murmurs join'd to the ruſtling of the leaves agitated by a freſh gale, which blowed from the mountain on the eaſt, gave us moſt agreeable ſenſations: continuing our walk in this manner about three hours, we arrived at an eminence, upon which, on one hand we diſcovered a ſmall lake, and looked down upon the *Arve*, which was foaming in a large deep hollow on the other.

SEDUCED by the beauties of this ſpot, we ſtopt a while to reſt ourſelves. A gentle breeze juſt moved the ſurface of the Lake, the banks of which on one ſide, have a rude appearance, with an air of melancholy, whilſt upon the other is a ſmiling meadow, brought forward by the ground of ſome delightful woods. The water, drawing down in eddies, bounds and ſpouts between the rocks, and haſ-

tens

tens to precipitate itſelf into the *Arve*, which heaves and ſtruggles along with difficulty; the ſwooing murmur of the fir-trees upon the mountains, added to the bright appearance and diſtinguiſhed aſpect of their ſnowy ſummits, of which we now began to form ſome idea; each of theſe objects taken ſeparately, and much more all together, made a ſtrong impreſſion, and ſpoke in the moſt lively manner to our hearts.

FROM this engaging eminence, the road divides into two branches; one of theſe deſcends in a ſtraight line to the *Arve*, the other, turning to the left, carries you to *Serve*, the laſt village in the valley of *Sallenche*; having paſſed in my journey by the one, and in my laſt by the other, I am now going to deſcribe them both.

IN

In paſſing from the little lake to *Serve*, we take the left hand road, which conducts us acroſs a hollow, like the bed of a great river, whoſe bottom is covered with large pebbles and fragments of rocks, amongſt which there wind along ſome ſlender ſtreams.

The appearance of this place ſeems to intimate, that there was formerly a collection of waters upon the mountain, which having burſt the barriers and broken down the mounds that ſtopped its courſe, at laſt forced its way, carrying with it in its paſſage, the earth and ſtones of which we now ſee the remains.

There is ſtill one valley more to paſs before we arrive at that of *Chamouni*, the little valley of *Serve*. This village is ſituated in a beautiful plain, well cultivated, and which produces excellent crops; we paſſed it at the time their fields particularly

cularly call for the attention of the huſbandman, and even demand his care; but this reaſon did not prevent the civility of theſe good people, who left every thing, to come and bid us welcome.

At ſome diſtance from *Serve*, we croſſed a torrent, and ſome rocks of a black ground ſtreaked with white grooves. The general form of theſe rocks has much the look of a ruined fortreſs; they diſtil a thick glutinous water, and one finds there a kind of green and yellow moſs, of uſe in painting. Going out of this ſmall Canton, we again croſſed the *Arve*, and a little farther is the place where the road, which remains to be deſcribed, unites to that we have now paſſed. I return then to the little lake upon the eminence.

Quitting its banks, we deſcended by a road, rather ſteep, to the *Arve*. This river

river is not any where very rapid: obſtructed and confined by large rocks within its channel, it roars, it foams, and pours down in ſeveral caſcades.

We paſſed it at this place by a ſlender trembling wooden bridge*; but to enjoy a fine view, it is neceſſary as ſoon as we are over, to coaſt along its bank toward its ſource, to about the diſtance of an hundred and fifty paces. We there ſee the river precipitate itſelf near ſixty feet, and cover by its fall a conſiderable extent of ſurface. The rocks which are on the right hand, and which are called *La tour de Barré*, produce likewiſe a fine effect; the name indicates ſufficiently their ſteep and perpendicular form; ſome of them project, riſing up from the boſom of the water, others are as if ſuſpended in it, and the little trees which grow upon their ridges,

* This is called by the inhabitants the *Goat's Bridge.*

ridges, add ſtill more to the beauty of the compoſition; the force of water, and its noiſe, which is terrible, ſhake even the very rocks upon which we ſtand.

AFTER having ſatisfied our curioſity with this proſpect, we reſumed our road through heaps of broken rocks, along a valley which riſes inſenſibly, and immediately entered into a cool refreſhing wood, from whence we diſcovered, on the left hand, the little valley of *St. Michael*, where we ſoon arrived, and which is ſeperated from the valley of *Serve* only by a chain of rocks, which at moſt are not above a thouſand paces in breadth.

THERE are ſome few habitations in this valley, but that which merits moſt to be ſeen, is a mine of copper, which after being worked for thirty years, is now abandoned. We halted upon the green turf before a cottage, from whence the appearance of mount *Blanc* was moſt pleaſingly

pleaſingly aſtoniſhing; the greater part of it was hidden from our view by clouds; its top alone was viſible.——The illuſion was complete.——It ſeemed another world deſcending upon our own.

It is at the going out of this little Canton, that advancing towards a defile, between ſome rocks and the *Arve*, we arrived at the place where theſe two roads, which I have been deſcribing, reunite. From this point of their reunion, the route continues riſing into the defile; the roaring of the *Arve*, ſtill more obſtructed and confined, the appearance of a mountain wholly covered with black firs, every object gave us the idea of a frightful gloomy deſert; however at laſt, after croſſing a little wood, we diſcovered a green plain, from which begins the valley of *Chamouni*. The ſight of this valley, crowned by the higheſt mountains in *Europe* covered with eternal ice, the whiteneſs of which contraſting the deep green

of

of the firs, and that lighter and more agreeable colour of the herbage, ſtopt our walk for ſome time. We were never tired of admiring the fine effect of this landſcape.

CROSSING now a ſmall ſtream (the water of which reddens the ſtones over which it flows) and a wood which was adjoining, we diſcovered the greater part of the valley, which extends from weſt to north-eaſt, in the form of a creſcent; what ſtruck us firſt, were the heaps of ice, which deſcend from the higher valleys, even into the plain; we next perceived ſome ſcattered groups of wooden cottages, with churches, chapels, and curates houſes, which being almoſt the only edifices of ſtone, are diſtinguiſhed at a diſtance by their whiteneſs. The road is ſtraight, bounded by a ſort of paliſades made of ſtakes driven into the ground, and interwoven with branches of the fir-tree; a manner of hedging which

is better than ours to protect the fields from cattle, and their owners fear no other invaders. The inhabitants who were at this season employed in their fields and gardens, enlivened and compleated the landscape.

After two hours walk, we once more passed the *Arve*, and sitting down to rest us near a brook that empties itself into it, we heard a most prodigious rumbling in the mountains, which we took for the effects of thunder, though the air was all this time serene; and we judged the tempest, though at present on the other side of the mountains, yet would certainly come up and overtake us, but we were agreeably mistaken, and were afterward informed, it was occasioned by the falls of snow, which separated from the Glaciers, roll down sometimes to the bottom of the valleys. In short, we arrived safe in the evening at *Prieure*, the most considerable village of *Chamouni*, which receives its name

name from a ſmall Priory eſtabliſhed there. The frequent journeys which the curioſities of this place have lately occaſioned, raiſed a wiſh for a decent houſe of reception and entertainment for ſtrangers: and an honeſt careful widow has for ſome time provided one, in which we were accommodated very much to our ſatisfaction.

THE valley of *Chamouni* is between ſix and ſeven leages in length, and not above a quarter of a league in its greateſt breadth, in ſome places not above four hundred paces: and the *Arve* paſſes through its whole length: the inhabitants are about fifteen hundred ſouls; it contains three pariſhes, that of *St. Joire*, *Prieure*, and *Argentiere*, which together form a community, governed by ſeven Counſellors and a Syndic. The Chapter of *Sallenche*, as I ſaid before, enjoys the lordſhip of this valley; it ſupplies the churches, and draws revenues from a country, which does not ſeem capable even of ſupporting its

its own inhabitants. This chapter was heir to a third part of every man's eſtate and effects, who died without children, but the community has bought off this right, for the ſum of thirty thouſand *Piedmonteſe* livres, about twelve hundred and fifty pounds ſterling.

THE inhabitants are worthy, civil people, and tolerably well inſtructed; there are few amongſt them but are taught to read; they are all poor enough it is true, but no one begs here, or goes out of his country to do it, and law-ſuits are unknown. Their lands, their cows, and their bees, are all their riches; what trade they have conſiſts in hemp, cryſtal, honey and cattle; their lands are well managed, and they employ their cows in the tillage of them. They ſow in the month of May, and reap in the month of Auguſt: they have no vines here, and very few fruit trees of any ſort; but their ſoil produces oats, rye, barley, and a ſmall

ſmall quantity of wheat; the land, as it is light and open, is plowed only once in a year, tho' they manure it with great care and labour. It is ſown with corn five years ſucceſſively, after which it reſts the five ſucceeding years, as paſture for their cattle. They drink the water of the *Arve*, which is freſh and pleaſant; it has a whitiſh appearance indeed; yet without any bad effects*; while they attribute to the water of a neighbouring ſource, a ſpecies of weakneſs to which the inhabitants of a hamlet oppoſite *Prieuré*, on the other ſide of the *Arve*, are ſubject. In ſhort, the rays of the ſun concentred in this valley, occaſion a ſufficient degree of heat for three months in the year, to com-

* The ſwelled throat, ſo peculiar to the inhabitants of the *Alps*, and which is almoſt general in the *Pays de Vallais*, is ſuppoſed to be occaſioned by the thickneſs of the waters, impregnated with a clay, that carries ſome noxious ſalts along with it, which foul and ſtop up the glands.

compenſate in ſome meaſure for the unprolific coldneſs of their winters.

The ſame evening we arrived, the people of the place, who are uſed to conduct ſtrangers over the Mountains and Glaciers, came to offer us their ſervices. Theſe conductors generally carry in their dorſer, every thing which the traveller may have occaſion for: their ſpirit, agility, and ſtrength are ſurpriſing, and in ſhort their aſſiſtance in theſe excurſions are not barely uſeful, but abſolutely neceſſary: they ought not however to be taken at random, as there are ſome of them doubtleſs who have more knowledge and experience than others. We engaged one to conduct us up Mount *Breven* the next day: this mountain, which is very high, is oppoſite to *Prieuré*, and it muſt have been ſtill much higher, if we may judge from the rifts, and fallen rocks, we ſaw on its ſummit. The reaſon which induced us to begin our diſcoveries from this

this mountain was, that being over-againſt the magnificent chain of the Glaciers, and the neareſt to their ſituation, we could have a better *general* view of them from its top; and as it was prudent to avail ourſelves of the weather,, which then promiſed to be fair, we got up an hour before day-light, and the inſtant it appeared began to aſcend the mountain.

DIFFERENT EXCURSIONS IN THE VALLEY of CHAMOUNI.

Of the Mountain called BREVEN.

THIS mountain, of which the foot is covered with a few fir-trees, and ſome bruſhy under-wood, is entirely bare at the top. We were five hours and a half in climbing it, by a difficult paſſage amongſt the ruins, which fall from time to time down its ſides; ſome of theſe fragments are huge, miſ-ſhapen blocks of

ſtone, and others flat, with ſharp edges; no path is traced to its heights: to arrive at one of its ſummits, there are three embraſures in this rock, which are ſo nearly perpendicular, we could hardly believe this *was* the paſſage, but our guide aſſuring us it was the place which Mr. *De Sauſſure* had climbed the mountain before us, we then took courage: as the ſurface was covered with ſmall pebbles, which ſlipped from under us, it was neceſſary to underſtand how to take the advantage of the clefts and fiſſures of the rock, in ſecuring our hold and placing our feet; it was infinite labour; the ſweat ran down our faces; the inſtant we thought ourſelves ſometimes perfectly ſafe, in having graſped the ſolid rock, the edge would deceive us, and break off in our hands; or the ſtone upon which we ſet our foot would eſcape, and we were carried down with the rubbiſh; but theſe accidents, which might have been attended with bad con-

conſequences, (as we came off unhurt) rather animated than diſcouraged us, and became at laſt a matter of amuſement; more eſpecially when we thought that our conductor was upon the watch two hundred feet below, and ready to receive us ſhould we ſlide down ſo far: this indeed never happened, and we got ſafe to the creſt of the mountain.*

The fatigues of travellers are not always fully rewarded, but theſe difficulties over, what beauties were diſplayed around us! The air upon the ſummit where we ſtood was perfectly ſerene and bright, whilſt the valley under us exhibited a very different appearance; it was covered with thick clouds, at this time gilded by the ſun, and moving with rapidity on either ſide of it; and as his power became ſtronger, we could ſee them ſeparate, and

* The inhabitants have ſince diſcovered a way leſs dangerous.

forming themſelves into different fleeces, make their eſcape by the ſeveral openings between the mountains.

If the plain afforded ſo agreeable and ſingular a ſight, the height in its turn gave us ſome perceptions altogether new. We had the magnificent proſpect of a chain of mountains, equally inacceſſible, and covered with ice, and above the reſt that of Mount *Blanc*, whoſe top ſeemed to reach, and even pierce through the higheſt region of the clouds. The chain upon which this mountain looks down like a giant, is compoſed of maſſes of rocks, which terminate in pikes or ſpires called the *Needles*; and which are ranged like tents in a camp; their ſides appear lighter, and more airy, from the ornament of ſeveral hollow breaks and furrows fretted in the rock itſelf, as well as from the different ſtreaks and panes of ice and ſnow, which without changing the general character of their form, or the majeſty

majeſty of their appearance, give them a pictureſque agreeable variety. Lower down, the eye ſurveys with raviſhment, the gills of ice, and the ſeveral Glaciers*, extending almoſt into the plain, whilſt this appears like an artificial garden, embelliſhed with the mixture of a variety of colours. In ſhort, we have a picture † oppoſite to this chain, which is formed by innumerable mountains at the diſtance of near fifty leagues, between whoſe tops we have a glimpſe of thoſe ſeveral plains which they environ.

* We counted five. The firſt ſituated at the foot of Mount *Blanc*, which they call the Glacier *des Boiſſons*, or *Boſſons*; the ſecond the Glacier *des Pelerins*, or *du plein de l'Aiguille*; the third the Glacier *des Eois*, or *de Montanvert*; the fourth that of *Argentiere*; and the fifth the Glacier *du Tour*; or in the country language *du Tord*; the laſt of which is diſtant from the firſt about five leagues and a half.

† What would it be then could we aſcend the ſummit of Mount *Blanc*?

It was upon this mountain we enjoyed that fine ſight, which two months before afforded Mr. *De Sauſſure* an experimental proof, in one of the moſt remarkable phænomena of Nature. As the ſkies began to blacken and threatened a tempeſt, whilſt he was upon its top, he was curious to ſee the effects of it, and for this he did not wait long; he ſoon found himſelf naturally electrified; but apprehenſive of danger, at ſeeing the lightening form itſelf too near him, he was obliged to haſten quickly under ſhelter.

With reſpect to ourſelves, without any fear at preſent of the conſequences of ſo terrible a phænomenon, we heard a long continued rumbling noiſe, like that of thunder, which the ſilence of the place where we ſtood rendered ſtill more awful. The *avalanches* of ſnow, which ſeparated from the tops of the mountains, rolled down, bounding, to the bottom; con-

conſiderable fragments of the rocks which followed them, overturning others in their fall; maſſy blocks of ice, conſolidated by returning winters, which precipitated from the higheſt ſummits; torrents, ſtreams of driven ſnow reduced to duſt, puſhed on by the force of the winds, and hurl'd aloft into the air; theſe together, were the principal cauſes of the noiſe which we heard; though we beheld at the ſame time the effects of a thunder ſtroke upon our own ſummit, which had penetrated its ſurface, and ſhivered even the pebbles of it.

ACCORDING to the moſt general eſtimation, we were in this ſituation raiſed near twelve hundred toiſes above the level of the lake of *Geneva*, which is more than twice the height of *Saleve* *.

* The higheſt point of *Saleve*, a mountain diſtant about a league from *Geneva*, is five hundred and twelve toiſes above the level of the lake.

This exceſſive height, and doubtleſs the neighbourhood of the ice which ſurrounded us, except on one ſide †, made us feel the moſt piercing cold. It was now two of the clock in the afternoon, and our thermometer was only four degrees above 0; we were nevertheleſs entirely at our eaſe, and took our repaſt, which the fatigue we had gone thro', and the purity of the air we breathed, rendered delicious.

It was not without regret we ſaw the moment arrive, when we muſt quit this ſcene; we threw one parting glance over all thoſe magnificent objects; which we never could be tired with ſurveying. We looked at one another, in expreſſive ſilence; our eyes alone could ſpeak what we had ſeen, and told what paſſed in our

† I ſay, except on one ſide, becauſe we had ſummits of ice like that of *Buet* behind us, of which an account will be given hereafter.

our hearts; they were affected beyond the power of utterance.

We now had infinitely more anxiety and trouble in deſcending, than we had in getting up; perplexed, ſhaking and trembling at every ſtep, our danger painted itſelf in all its terrors. We nevertheleſs came off with ſome ſlips; but it was four hours before we arrived at the bottom, though we ran part of the way. It was night when we reached *Prieuré*, where we found the good people of the place had been ſome time uneaſy*, looking

* They were the more uneaſy, as ſome days before, one of their townſmen had been taken up dead. This poor man, having learned that Mr. Profeſſor *De Sauſſure*, was expected at *Chamouni*, formed a deſign of climbing the mountain, with a view of chaſing a Chamois, to preſent him at his arrival; but he had the ill fate to fall from the top of a rock. Mr. *De Sauſſure*, touched with his misfortune, and the diſtreſſed ſituation of his family, conſoled them by his gene-

ing out with anxious expectation, and were then juſt quitting their houſes to come to our aſſiſtance, apprehenſive that we might have met with ſome unfortunate accident.

generoſity, making very conſiderable preſents to the widow and children. I had this account from the inhabitants themſelves, who take every opportunity of exalting his generoſity and affability of behaviour to them upon all occaſions; and ſuch is the reſpect they bear him, that they never ſpeak of him without taking off their hats.

VALLEY of ICE OF MONTANVERT.

HAVING taken this general ſurvey of the Glaciers, we determined to ſpend the reſt of our time in examining the conſtruction of each of them particularly, and to begin with the valley of ice called *des Bois*.

FOR this purpoſe we aſcended *Montanvert*, the mountain oppoſite to Mount *Breven*; it is leſs high, leſs ſteep, and more agreeable, being covered with beautiful

tiful fir trees, many of which we ſaw had been thrown down by the winds. The northerly winds blow with the utmoſt violence through the valley in the ſpring, and the ſouthern winds in autumn; but that which they moſt dread, is a wind from the Eaſt, which pouring through the ſtreights of the mountains, plunges towards their feet, tears up by the roots, or overturns all the trees in its way, and not uncommonly, reverberated by ſome other mountain which oppoſes its paſſage, it returns in eddies, unroofs the houſes, and does infinite miſchief. We had the good fortune however to experience none of its fury; the air was perfectly calm the whole time we ſtaid at this place, and gave us an opportunity of enjoying in ſecurity, the ſight of its extraordinary objects.

We now looked over an entire valley of ice ſeveral leagues in length, and a * quarter

* See the Preliminary Diſcourſe, p. xiii.

quarter of a league in breadth. At the diſtance of about three leagues, it divides into two branches, that on the right extends behind the mountains commanded by Mount *Blanc*, and the ſecond turning to the left, goes on towards *Val d' Aoſte*.

A SEA violently agitated by a ſtorm, and arreſted by a ſevere ſudden froſt, might well repreſent the appearance of this Glacier; the waves, hardened by ſucceeding winters, are ſome of them of a dirty, and others of a clear white, divided by oblique fiſſures, which appear of a tranſparent blue. The waters murmur as they run along theſe clefts, ſeveral of which are very deep, and new ones frequently are opening; the prelude to theſe new ones, is a loud burſting noiſe; and probably the melting away of ſome parts at the bottom of the Glacier, occaſions the cracking upon its ſurface. This valley is formed by high mountains, which terminate in Spires or Needles, and theſe have

have all different names; one is called *l' Aiguille du Dru*, another *l' Aiguille du Goute*, a third is called *le Moine*, and a fourth *le Géant*: ſome of them have the form of obeliſks; but the *Dru*, which ſurpaſſes them all in height, is a moſt magnificent pyramid.

At the extremity of this valley, is an Amphitheatre, compoſed of very lofty mountains, which cloſe it; at the tops of which there is an appearance of a gallery, adorned with ſeveral ſtatues, ranged in a ſort of ſymmetry; and it is here that the cryſtal is generally found, ſurrounded with a greeniſh earth or moſs; it has not the form of a Die as in *America*, but of a column of ſix or ſeven faces, and is always terminated in points.

There are rocks, which ſometimes breaking off from theſe *Needles*, tumble after ſeveral bounds upon the ice. We ſaw an *Avalanche* of ſnow, which was inſtantly

ſtantly reduced into a cloud by a guſt of wind; and there fall likewiſe from theſe mountains, ſeveral torrents of water, which form little caſcades, the ſight of which is exceedingly agreeable. We deſcended afterwards upon the ice.

THE earth at the edge of this valley *, is white and friable like chalk; they call it ſerpentine. It is aſtoniſhing at this place, only to *look* at the height of the ice; its waves reſemble little mountains, heaped upon one another, ſome of which are not leſs than from forty to fifty feet high: it is difficult to make our way over them at firſt, but in proportion as we advance farther up into the valley, theſe waves of ice inſenſibly decreaſe in height, and become more even. We found here the bones of a poor Chamois, which was brought

* Probably from the form of its ſtrata, or from ſome reſemblance it bears to a ſpecies of marble ſo called.

brought hither no doubt by an *Avalanche*. The ice ſeems to encreaſe every year, and the old people at *Chamouni* aſſured us, that formerly it was poſſible to penetrate from the extremity of this valley, even to *Val d' Aoſte*, which the vaſt accumulation of ice has rendered at preſent impracticable.

THERE are two cauſes which appeared to us to keep the ice eternally in this valley; its height, and its ſituation. The ſoil of the valley of *Chamouni* is about three hundred and forty toiſes above the level of our lake; this height, join'd to the effect of the mountains covered with ſnow, which ſurround it, renders the air very ſharp, and the winters long. Its ſituation nevertheleſs, from weſt to eaſt, to eight or nine hours ſunſhine, every day for ſeveral months, and his rays reflected from the mountains, occaſion a very conſiderable heat; but the valley of ice is elevated about three hundred and fifty

fifty toiſes higher than that of *Chamouni*, whilſt its extenſion from ſouth-eaſt to north-weſt, and the prodigious mountains it has upon the ſouth ſide, permit the ſun to ſhine upon it but a few hours in the day, and this only in the height of ſummer, when he is near the tropic; at which time his rays do but juſt glide over it.

After having walked upon the ice near two-thirds the breadth of the valley, we contented ourſelves at preſent without going farther, and re-aſcended to repoſe ourſelves near a ſhocking hovel, which our guides called the *Chateau de Montanvert*, of which we took the road to *Prieuré*, with lively impreſſions of what we had already ſeen, and an eager deſire to penetrate to the extremity of this valley.

THE

THE GLACIER des PELERINS.

AS it was our deſign to viſit every thing intereſting at *Chamouni*, a liſt we were favoured with by Mr. Profeſſor *De Sauſſure*, ſerved for our direction; and the *Glacier des Pelerins* was propoſed in it, as well worthy of our obſervation. This being the higheſt in the chain commanded by Mount *Blanc*, and likewiſe ſo near the mountain, that it might even be reckoned a part of its baſe, we determined to aſcend it, and to range from this Glacier along the *Needles*, all the way to *Montanvert*, where having paſſed the night, we might deſcend the next morning into the

the valley of ice, and penetrate as far as poſſible.

To execute our deſign we made choice of four guides, one to conduct us to the Glacier *des Pelerins*, and the other three to go the ſame day to *Montanvert*, to prepare for our reception, and to accompany us afterwards into the valley; ſuch was the plan we followed. We ſet out very early the next morning, upon the ſame ſide of the valley with Mount *Blanc*, and aſcended through a foreſt of fir trees. In this walk we paſſed over conſiderable tracts, where whole woods ravaged and deſtroyed, painted to us the terrible effects of thoſe *Avalanches*, which frequently roll from the mountains, and particularly in the ſpring. Theſe *Avalanches* are formed of ſnow, driven by the winds againſt the rocks, where the quantity is accumulated, and ſupported by their ledges and projections, till ſucceſſively increaſed, both in extent and depth, to a prodigious ſize,

at

at laſt they overcharge the baſe which kept them up, break off by their own weight † and falling with a dreadful craſh, thunder down into the valley, carrying every thing with them in their way. There is ſomething very grand, and at the ſame time frightful, only in the ſight of thoſe prodigious falling maſſes, which the wind, occaſioned by the velocity of their motion, renders ſtill more horrid: It

† There are other cauſes, both of the accumulation and fall of thoſe vaſt maſſes of ſnow, than what are here given. *Vide Recherches ſur les Modifications de l' Atmoſphere*, tom. ii. p. 295.

In croſſing over the *Alps*, more eſpecially during the ſpring, the jingling of the bells upon the mules, is frequently ſufficient to bring down the *Avalanches*, which in narrow defiles obliges the muleteer to take them off, and march with the utmoſt ſilence and caution, under theſe threatening precipices; or where they are likely to roll beyond the road, and reach the declivity of the mountain, to ſhake them down by the diſcharge of a piſtol, before he ventures to proceed on his way.

It is a torrent that nothing can reſiſt, raiſing clouds as it were of ſmoke, and whirling it in vortexes to the ſkies, which it darkens and even hides; hopeleſs the poor inhabitants, whoſe dwellings are too near: they are certain either to be carried down, and cruſhed with the maſs, or buried alive with their families and their cattle. Several of theſe *Avalanches* ſtill preſerve ſome memorial of the cataſtrophe they occaſioned, as they retain the names of the places they have ruined or overwhelmed; one for inſtance is called the *Avalanche de la Coudre*, or *des Noiſetieres*, and another the *Avalanche des Ingolerons*; the former of which appears to be near a quarter of a league over. It was not till after a walk of four hours, that we at laſt arrived at the *Glacier des Pelerins*, which is called likewiſe *Glacier du plein de l' Aiguille.*

THE *Glaciers*, as hath been before obſerved, are beds of ice, more or leſs thick,

thick, which are lodged upon the gentler declivities between mountains. Theſe beds, increaſed from time to time, become of a conſiderable extent and thickneſs; that upon which we now were, is about ſix hundred yards in length from top to bottom, and may be fifteen hundred yards in breadth. We croſſed over it: it is ſeparated in many places by rifts and clefts, of which there is no diſcerning the bottom; but upon carefully examining them, the new ice may be readily diſtinguiſhed from the old: the new is white, and at moſt not above ſix feet thick, whereas the old below it, is of a bluiſh colour. It is neceſſary to be cautious in walking upon this ice; to ſtrike with your ſtaff before you place your foot, and to ſet it when it can be done upon the ſwelling parts, which their convexity in general renders more firm: this attention is neceſſary likewiſe, becauſe the clefts are ſometimes concealed by freſh ſnows: but what baffles all precaution, there

there ſeems beſides to be a danger from the burſting open of new clefts, which are ſometimes made without the leaſt notice to expect them. We were now advancing farther up upon the Glacier, when all at once a rolling noiſe like thunder under our feet, occaſioned us to retire with precipitation the ſame way we came: but if we had reaſon to be afraid of what might happen under us, what we ſaw above our heads did not ſet our minds altogether at reſt: theſe were the Needles, behind which we heard a ſullen rumbling ſound, with now and then a ſharp redoubled crack; and ſeveral rocks thrown down at no great diſtance from us, were a demonſtration of the danger we were in. In our haſty retreat, we found a butterfly dead upon the ice, and ſaw ſome *Marmotts* †, which we were upon the point of

† The Marmott is an animal of the Glis, or Rat kind, about the ſize of a ſmall hare; it remains in a torpid

of taking: two Chamois afterwards made their appearance, but at our approach retired, as if with a reluctant ſlowneſs, to the heights of their mountains. We took the ſame road they did, aſcending pretty high; and made no doubt of our arriving in a ſhort time at the foot of the Needles, as Mount *Blanc* did not appear very diſtant: what a miſtake! we reached them indeed. but not till after a long hour's tireſome and fatiguing walk.

torpid ſtate, like the Dormouſe, near the tops of the rocks during winter, and is ſo benumbed and inactive upon firſt coming out of its holes, as to be eaſily caught.

REGION

REGION of the CHAMOIS.

Laborious walk along the baſe of the Needles *to* MONTANVERT.

THE view of the Neeedles from their foot, was a moſt raviſhing ſight; but when we reflected that from their ſummits, the plains of the ſouth, the north, and the eaſt were to be diſcerned; how mortifying to think them inacceſſible! a reſtleſs inclination did it excite, to attempt at leaſt, to ſet a foot upon their heads. My mind was ſtrongly agitated; and looking at them with a longing attention, I thought I ſaw a poſſibility of doing it: urged forward by this flattering inſtant hope, I ſurmounted with determined

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REGION of the CHAMOIS.

Laborious walk along the baſe of the Needles *to* MONTANVERT.

THE view of the Neeedles from their foot, was a moſt raviſhing ſight; but when we reflected that from their ſummits, the plains of the ſouth, the north, and the eaſt were to be diſcerned; how mortifying to think them inacceſſible! a reſtleſs inclination did it excite, to attempt at leaſt, to ſet a foot upon their heads. My mind was ſtrongly agitated; and looking at them with a longing attention, I thought I ſaw a poſſibility of doing it: urged forward by this flattering inſtant hope, I ſurmounted with deter-

mined reſolution every obſtacle, the rocks oppoſed in my way, and mounting over the heaps of ruined fragments, I at laſt attained a ridge of that pike which adjoins to Mount *Blanc*.

THE elevation I had now gained, was moſt exceedingly delightful; but the proſpect differed little from our view upon Mount *Breven*: I was far from being ſatisfied; I wanted to get rid of that immenſe rampart, which hid from me the plains toward the ſouth: redoubling then my ardour, I climbed afreſh with inexpreſſible fatigue from rock to rock, and with the caution of a reptile making its way upon ſome briſtly plant, I inſinuated along the traces of thoſe ornamental winding crypts, which gave theſe maſſes all that lightneſs we admired from *Breven*; till aſtoniſhed at the prodigious height I ſaw myſelf, and ſtill more with what remained for me to do, I at laſt diſcerned the full length of my ability.

BUT

But I was ſufficiently rewarded for my trouble, by the beautiful picture that was before me; higher than the *Breven*, my view extended over the mountain to the weſt and north; near me, and at my feet, were the valleys of *Chamouni*, of *St. Michael*, of *Serve*, and of *Sallenche*; farther off I diſcerned the valley which ſeparates the two *Saleves* †, and ſaw with an affectionate regard, which it is impoſſible for me to expreſs, thoſe parental plains upon which *Geneva* is ſeated, its beautiful lake, and in ſhort the whole extent of Mount *Jura*, to the fort of *Echuſe*. On my right were the valleys of the *Pays de Vallais*, half of which only were diſcoverable, and that immenſe chain of the *Alps*, which deſcribing a curve, is terminated at *Fourke*, and Mount *St. Gothard*.

The purity and clearneſs of the air, free from the exhalations of the plain,

† Two mountains near *Geneva*.

enabled me to ſee all thoſe objects with ſuch diſtinctneſs, and preciſion, that I conceived it would have been *eaſy* for me to trace them in a Drawing; but I ſoon loſt myſelf by this very circumſtance; ſuch a number of objects were too much brought together, and crowded under my eyes, ſo that nothing kept its due diſtance.

I HAD left my companions at the foot of the *Needles*, and could ſee the little lake upon whoſe border we had appointed to reſt ourſelves; it was impoſſible to diſtinguiſh *them*; but I could hear the report of their gun, which was the ſignal agreed on.

I WENT down again with much anxiety and labour: the ſtones, the rocks rolled under my feet, and I dared not truſt myſelf even to ſome enormous maſſes which ſeemed to hang upon nothing. I got ſafe however at laſt to the bottom, and ſoon rejoined my companions in the journey.

journey. Seated upon a delightful bank of moſs, we took our repaſt at the border of the lake, whoſe water is of an intenſe coldneſs, and which is almoſt covered by thoſe threatening *Needles*: one of theſe in particular drew our attention; it was diſtinguiſhed and brought forward, by a glazing of the moſt tranſparent ice, which added greatly to the effect of an object in itſelf excedingly magnificent. *

FROM hence we were to go to *Montanvert*, where according to our plan, we were expected: it was two o'clock before we ſet off; we had to paſs the whole

* Let any perſon form to himſelf, if it be poſſible, a view of this mountain, of which the front that it preſented is as large as that of *Mole*, which looks towards *Geneva*; and whoſe covering of ice was ſo perfectly clear, that the foliage of its plants, the veins of the the rocks, and their various colours, came out with ſo much ſplendor and brilliance, that it might be taken for a work of art, if its immenſity did not inſtantly forbid the ſuppoſition.

chain of the *Needles* over fallen rocks; the road was bad, and never were we ſo much deceived in the eſtimation of diſtances; what appeared to us to be no more than half a league, was always twice as far, and the jutting parts of this chain, whoſe points ſhut over one another, threw us into continual errors. It ſeemed that having reached the point which offered itſelf immediately before us, we ſhould ſoon be at the end of our journey; and when encouraged by this hope we attained it, ſome new projection, not leſs diſtant than that we had ſo reſolutely gained, oppoſed itſelf to lengthen our fatigue. The views however, at all times moſt engaging, were both beautiful and ſublime: *Above* us, we had the pleaſure of ſeeing a torrent of ſnow precipitate from a rock; ſix hundred yards *below* us, was the region of lofty *firs*; four hundred yards *below theſe*, was that of *Larches*, whilſt ourſelves were in the region

gion of the *Marmotts*, and *Chamois*; very much out of our place, as is evident from the labours and difficulties we experienced, which ſometimes almoſt weighed us down. Perpetually deceived with reſpect to diſtances, conſtantly walking over broken rocks, either ragged or cleft, or edgy, frequently apprehenſive of being carried down along with them, or of taking a falſe ſtep, or of wedging of our foot in the cleft of a rock, (which it is impoſſible always to be certain of avoiding) and often obliged to run acroſs conſiderable ſpaces with the utmoſt expedition, to eſcape the danger from *Avalanches*, or the falling of the rock, it was not till after a laborious walk of five hours in this manner, that we met our man, the ſervant we had engaged to attend us the whole journey. Our joy was reciprocal; he had been at *Montanvert*, and was coming up in ſearch of us. We ſoon after diſcovered the valley of ice at the bot-

tom, and at laſt the hovel of *Montanvert*, which with *us* had now the merit of the ſtatelieſt *Chateau:* it was not however till after three quarters of an hour's walking, that we reached it, though we went down very faſt. As it was in this place we were to paſs the night; the third companion of our journey waited for us here, with our guides: they had brought us all the neceſſary proviſions; but the ſight of this valley of ice, and the extreme coldneſs of the air, which he was unable to ſupport, determined him to quit the mountain, and return to *Chamouni*. It was not without much concern we ſaw him leave us, the inſtant we almoſt rejoined, and were juſt going to enjoy the nobleſt proſpects. The guide who had attended us the whole day, went down at the ſame time; there remained then only my firſt companion, our domeſtic ſervant, three guides, and a ſhepherd.

We ſaw with much tranquility the approach of night; the air was calm and ſerene, and the ſtars now glittered in the ſky, when we ſet down to our ſupper. Seated upon the turf, or upon ſtones near a large fire, we admired the ſplendor of the heavenly bodies, which in that horizon, bounded and confined by mountains, ſeemed to glide away with more than ordinary ſwiftneſs, and give place to others.

Invited by ſo many extraordinary objects to meditation, fatigue alone could at laſt oblige us take repoſe. They had prepared a bed for us in the cottage, which was nothing more than a nich in a large ſtone, the ſhepherds had incloſed by a wall without mortar, and in this two perſons only could ſhelter themſelves from the weather. Our people in the mean time were ſtretched about the fire, with no other covering than the ſkies,

and in ſome meaſure better off than ourſelves, who were expoſed to the piercing ſeverity of the wind, which forced through every crevice of the wall. We were frequently under the neceſſity of going out to warm ourſelves: and in imitation of our guides, preſenting ſometimes one ſide to the fire, and ſometimes the other; in this manner we waited for the morning.

It appeared, but its appearance was for ſome time doubtful, becauſe the rays of the ſun, which almoſt inſtantly enlightened the tops of the mountains, had all the ſilver paleneſs of a moon-light; an effect which was occaſioned by the whiteneſs of the ſnows and ice, whoſe colour in theſe places is the predominant tone of every object.

SECOND DESCENT

INTO THE

Icey Valley of Montanvert,

And extraordinary Paſſage over it.

WE deſcended into the valley, about three quarters of an hour after ſunriſe, when the *Engliſh ſtone*, to which we paid a viſit, recalled with much reſpect the firſt diſcoveries of Meſſrs. *Windham* and *Pocock:* how inconſiderable, when compared with what we promiſed ourourſelves a ſight of! yet ſcarcely had we gained our feet upon the ice, when we found ourſelves retarded by the clefts, that opened quite acroſs the valley. We paſſed a number of them with the utmoſt gaiety

gaiety and ſpirit; but others ſoon appeared, it ſeemed impoſſible to clear; nor could we even look at them without terror. Our guides accuſtomed to ſuch objects, ventured over boldly; provided with a ſtaff or pole of ſeven or eight feet only in length, they ſprung with an amazing ſtrength, agility, and reſolution, and encouraged, and inſtructed us to do the ſame. The farther we advanced, we met with openings wider yet, as well as deeper, and where even our guides were under a neceſſity of taking every poſſible precaution. In ſuch caſes they generally placed their pole horizontally under the left arm, with the longer part of it extending backward; ſo that if they ſhould not have ſufficient ſtrength to reach the farther ſide, they ſtood a chance at leaſt to be ſuſpended by it: one trembles at the idea of ſuch an accident! Happily no misfortune befell us, and we gained the middle of the valley; our exerciſe

erciſe rendered us more active, and habit gave us courage, which in truth was neceſſary every inſtant.

But a chaſm we now arrived at, cauſed us infinite perplexity, its depth was about eighty feet, and we were ſtopped near half an hour upon the brink, by new difficulties, and the apprehenſions of our danger: one of our guides at laſt, and my companion leaped it; for myſelf, I dared not follow them, and the want of reſolution coſt me many a fatiguing round. This difficulty happily ſurmounted, we flattered ourſelves the worſt was over, when all at once we were again ſurpriſed with mounds of broken ice, and chaſms, of which we could ſcarce diſcern the bottom: we climbed however, not without great difficulty, to the top of one of theſe confuſed heaps, never once ſuſpecting what it led to. It looked into a *void* of a prodigious depth, which ſeemed to ſever this from all the other maſſes.

We

We ſtood motionleſs, to find the ſituation we were in, and what hazards we muſt riſque to paſs it: never was preſence of mind more neceſſary; we threw our eyes in ſilence over all the objects near us; we meaſured their extent, remarked their ſhapes, their prominencies, and the graſp they could afford us; every advantage was conſidered, and at length by ſtrict attention, we diſcerned a hole, as if it had been digged into the ice, appearing like the entrance of a mine that had been worked; and as we perceived an outlet on the other ſide, it raiſed our ſpirits. There was danger ſtill, in truſting to ſo frail an arch, for ſuch a diſtance, which might upon the ſlighteſt ſhock, or even upon the ſlighteſt noiſe, ſink in at bottom, or break down above and cruſh us: we drew ourſelves however gently through it, and by means of this precaution paſſed it ſafe †.

We

† The author is not ſo clear in his account of this Paſs

We now were ſoon to ſee an end of theſe alarming hazards, and of our exceſſive labour. Arriving near the fall of rocks upon the ice, we employed ourſelves in ſearch of cryſtals; all theſe rocks are filled with ſuch productions: and we could diſcern the beds, or broken caverns they are formed in, at the ſummits of the mountains. The farther we advanced, the more we ſaw of objects to admire; yet ſurrounded by theſe beauties, we could not but reflect with horror, at the ſight of this eternal frozen lake, its yawning clefts, and deep abyſſes; whilſt the mountains that environed us, whoſe antiquity impreſſed a reverential kind of awe, the gradation of their ſloping ſides, which ſometimes ended in a headlong precipice, the variety of their ſtupendous rugged forms, together with thoſe piles of ice, and rocky fragments, which broken

Paſs, as might be expected from his general accuracy of deſcription.

ken from their points, had rolled into the valley, ſtruck us with amazement: in ſhort we were confuſed at the thought of being in a place thus ſevered from the world by ſuch enormous bulwarks, where there reigned a deep and univerſal ſilence midſt a thouſand dangers.

Horror ubique animos, ſimul ipſe ſilentia terrent.

As we now proceeded on, the valley was expanded wider, and the ice became more even: but although we had already walked upon it four hours, from our ſetting off, we had not yet reached the place at which the valley is ſeparated into two branches: we gained this point however at laſt: what a picture was before us! we were ſurprized to a degree of tranſport, and incapable of expreſſing our admiration, but by frequent acclamations.

We beheld a ſpacious icey plain entirely level; upon this there roſe a mountain

all

all of ice, with ſteps aſcending to the top, which ſeemed the throne of ſome divinity. It took the form moreover of a grand caſcade, whoſe figure was beyond conception beautiful, and the ſun which ſhone upon it, gave a ſparkling brilliance to the whole: it was as a glaſs, which ſent his rays to a prodigious diſtance: a poliſhed mirror, upon which the objects were deſigned with ſuch a perfect mixture of light and ſhade, as raviſhed our ſight; and to complete the beauty of the proſpect, this even glaſſy lake was crowned with mountains differently coloured, and enlivened by a varniſh of the cleareſt ice: theſe altogether, formed a compoſition of the moſt delightful ſplendid objects, heightened by the deeper colour of a ſingle neighbouring mountain, which gradated from top to bottom: whilſt this again was interlaced with ſtreams of ſnow, whoſe winding currents caſt a luſtre from the ſun. In ſhort, the whole

whole of this enchanting view was terminated with the rocks of cryſtal, and by others, all whoſe ſeveral tints were richly and profuſely varied.

New beauties ſtill continued to delight us, aſtoniſhed as we were at preſent, by a number of objects ſo magnificent and vaſt.

The valley on our right was ornamented with prodigious Glaciers, that ſhooting up to an immeaſurable height between the mountains, blend their colours with the ſkies, which they appear to reach. The gradual riſe of *one* of them, induced us to conceive it practicable to aſcend it; and ſuch is the engroſſing nature of theſe objects, that they ſeem to efface every other idea. We are no longer our own maſters; and it is next to an impoſſibility to ſtop the impulſe of our inclinations.——It would open ſtill new ſcenes, of

of more extenſive grandeur.——That as we *certainly* ſhould gain a view behind the Needles, ſuch a point of elevation, (beyond which, no mortal whatever had yet gone) would not only preſent Mount *Blanc*, to us under a new form, and with new beauties, but that in ſhort, looking towards the ſouth, we ſhould have a picture of all *Italy* as well as in a Camera Obſcura. It was thus the wildneſs of imagination prompted us to think the project poſſible, and we were in the full enjoyment of our reverie,, when a horrid noiſe from the very ſame Glaciers put an end to this delightful dream, and ſhattered the ſcenery at once. Reaſon dictated immediately, that ſuppoſing ſuch a fancied picture as we had repreſented to ourſelves, to be real, and that it *were* poſſible to aſcend the height of the Glacier to enjoy a ſight of it, the execution of the plan, would require our ſtay all night upon this frozen valley, which was abſolute-

ly

ly impoſſible, from the want of fewel only.

By this time reſt was neceſſary to us; and the only ſituation where we could be ſafe, was in the middle of the valley; we might here at leaſt be out of danger from the falling down of ice or rocks. The ſtation of Mr. *De Sauſſure* appeared moſt eligible for our purpoſe, and we were coming to the very ſpot: it is a maſſy block of ſtone, preciſely at the middle of the ice; we ſeated ourſelves upon it, and having taken out our neceſſary refreſhments, poured a ſparkling libation to the honour of the Profeſſor, as the firſt perſon who had reſolution enough to penetrate thus far.

We reſted here two hours, our minds voluptuouſly employed in the contemplation of ſo many wonders; every moment was diſtinguiſhed with ſome new diſcovery. A ſingle glance over all theſe Glaciers

ciers together, ſeemed to throw a light upon their correſpondence and extent, and I ventured to conjecture that the firſt Glacier in the valley upon the right hand, might end at the Glacier of *Pelerins*, and the ſecond at that of *Boſſons*. That the Glacier *le Talefre*, over the valley on the left hand, joined to a Glacier like this we were upon, extending from thence to the Glaciers of *Argentiere* and *Tour*, and then ſtretching as it were its arms to the valleys of ice, in the *Pays de Vallais*; as thoſe again have ſome connection with the Glaciers of the Canton of *Berne*, and the reſt of the Glaciers in *Switzerland*.

From ſuch conjectures, which the ſituation of theſe Glaciers renders highly probable, it ſeems to follow, that the antienteſt and moſt conſiderable of them, are thoſe commanded by Mount *Blanc*; that thoſe of *Vallais*, and the other ſtill more diſtant, are to be conſidered as making up a regular train; and that farther, this relative

relative poſition of them with reſpect to each other, indicates the *cauſe* of their progreſſion, and of the accretion of the ice.

It was now high time to quit the place: we looked at all its wonders with a freſh aſtoniſhment and admiration: we ſaw them doubtleſs for the laſt time; for it is not with the beauties of this country as of others, to be viſited again with eaſe as inclination prompts us: but if our arrival at this point was not accompliſhed without labour and fatigue, the grandeur of the objects we had ſeen, made us ample ſatisfaction. We had taken every poſſible advantage of our journey; the weather had continually favoured us; and it is at one ſeaſon of the year only, that ſuch an enterprize can poſſibly be undertaken.

We inſtantly ſet off again upon our journey, re-entered the valley of *Montanvert*, and walked a tolerable pace; ſome clouds we ſaw approaching haſtened us

ſtill

ſtill more; it was not long before they thickened, ſo that they from time to time entirely hid the ſun; and a ſudden return from this gloom to the moſt dazzling light upon the ice, could not but endanger the due placing of our feet. As we approached *Montanvert*, we began to ſee upon the mountains which ſurrounded us, ſome verdant ſpots, which gave refreſhment to our eyes: in theſe places are produced thoſe medicinal plants, ſo valuable for their properties, and their ſcarceneſs, which grow there only, or in ſuch like ſituations. My fellow traveller, who is an eager Botaniſt, was very deſirous of finding that particular ſpecies of *Abſynthium*, called *Genepi*; for this purpoſe he aſcended one of theſe mountains, and had the good fortune to meet with it. There are ſeveral ſpecies of this plant, more or leſs common; that he ſought for, was the white, a plant particularly agreeable to the taſte of the wild *Goats* and *Chamois*, which they

they generally are obliged to dig for through the ſnow.

We ſaw none of the latter animals in this excurſion, but we met with ſeveral goats, which they drive to paſture in the mountains, and graze there for about ſix weeks; leaving them without a keeper, and viſiting them not above once in ten or twelve days: there are herds likewiſe of cows, which they leave to themſelves for the ſame length of time, at the end of which they are driven to freſh paſtures. The herds have no other enemies to fear in theſe places but *Tempeſts* and *Avalanches*, or other ſuch like common accidents of the mountains: it is highly agreeable, and even aſtoniſhing, to ſee the great as well as ſmall cattle, croſs the valley of ice, leaping its clefts, climbing over rocks, making their way along the hanging ſteeps, and walking upon ridges one would hardly think acceſſible: the moſt venturous of them indeed ſometimes loſe their

their lives through their raſhneſs; but in this caſe the loſs does not fall upon the particular owner, but upon the public; in other words, it is diſtributed amongſt the general proprietors, and every owner in a herd where ſuch a misfortune happens, bears his ſhare of it.

To avoid that Abyſs in our return, which we had paſſed with ſo much hazard, it was neceſſary to draw towards the ſide of the mountains in good time, to keep on, cloſe to their feet, and now and then to aſcend the ridges, to avoid ſome beds of ice, or fragments of rocks, that oppoſed our paſſage, and it was with infinite fatigue we made our way to *Montanvert*.

One reflection naturally occurs: All theſe labours, and ſometimes dangers, it may be ſaid, are too diſcouraging, if they do not even baniſh every inclination to penetrate to the extremity of the valley.

I ANSWER; it is true that we experienced much fatigue, as well as many hazards, but that it is practicable to effect it, and yet avoid a conſiderable part both of the one and of the other.

FOR this purpoſe, I would recommend it to ſuch as have no averſion to a little trouble, not to get upon the Glacier immediately at *Montanvert*, but to go as far as poſſible from this place, before they deſcend upon the ice; to croſs the breadth of the valley directly from thence, and to coaſt along the mountains on the left hand, as they did upon the right before they came down to the Glacier. This route, which is choſen by the herds, and which on that account alone I ſhould be diſpoſed to think the ſafeſt, conducts the traveller at a diſtance from thoſe deep clefts we were under a neceſſity of paſſing, by having deſcended into the valley too ſoon. Thoſe who are afraid of rocks, and

and not accuſtomed to the fatigue of ſuch a laborious walk, may charge their guide with a ſmall bridge made of oſiers, which may be doubled, to render it ſtill more firm; by means of this, the paſſage may be conſiderably ſhortened, and rendered at the ſame time ſafer, as well as leſs fatiguing. It would be deſirable, if poſſible, to avoid lodging upon *Montanvert*, as the cold which muſt be endured there, certainly weakens us. Lying then at *Chamouni*, and ſetting out three hours before day, the traveller might get to *Montanvert* by five o'clock; a good breakfaſt would renew his ſtrength; he might then deſcend upon the ice, go over the whole extent that we did, and return again to *Montanvert* by broad day-light, from which place he may get down to *Chamouni* in two hours. And after all, what are theſe inconveniencies and a little trouble, compared with the pleaſure ariſing from a ſurvey of objects, ſo amazingly beautiful, and where vaſtneſs and ſublimity reign

throughout the whole. To be ſatisfied with a ſimple view of this valley, as we ſee it from *Montanvert*, one muſt either entertain a very poor idea of the beauties of theſe places, of their nature, and their elegance, or be deſtitute of that Taſte which is requiſite to the enjoyment of them, or under the mortifying incapacity of gratifying it, from a weakneſs of conſtitution.

The ſame day we deſcended the mountain, and arrived at *Prieuré* juſt as our third companion returned thither, who had been to viſit the ſource of the *Arve*. Good proviſions and reſt perfectly recovered us. We devoted however the next day ſolely to viſiting the ſource of the leſſer *Arve*, called the *Arveron*, which is ſituated at the foot of the Glacier of *Montanvert*, and not more than a league diſtant from *Prieuré*; ſo that it appears we rather were diſpoſed to indulge ourſelves, like people who had ſuffered ſome fatigue.

Col-

COLLECTION or MASS of ICE *called* DES BOIS,

AND

Source of the ARVERON.

TO come at this collected maſs of ice, we croſſed the *Arve*, and travelling in a tolerable road, paſſed ſome villages or hamlets, whoſe inhabitants behaved with much politeneſs; they invited us to go in and reſt ourſelves, apologized for our reception, and offered us a taſte of their honey.

AFTER amuſing ourſelves ſome time amongſt them, we reſumed our road, and entered a beautiful wood of lofty firs, inhabited by ſquirrels; the bottom is a fine

ſand, left there by the inundations of the *Arveron:* It is a very agreeable walk, and exhibits ſome extraordinary appearances.

In proportion as we advanced into this wood, we obſerved the objects gradually to vaniſh from our ſight; ſurprized at this circumſtance, we were earneſt to diſcover the cauſe; and our eyes ſought in vain for ſatisfaction, till having paſſed through it, the charm ceaſed. Judge of our aſtoniſhment, when we ſaw before us an enormous maſs of ice, twenty times as large as the front of our cathedral of *St. Peter*, and ſo conſtructed, that we have only to change our ſituation, to make it reſemble whatever we pleaſe. It is a magnificent palace, caſed over with the pureſt cryſtal; a majeſtic temple, ornamented with a portico, and columns of ſeveral ſhapes and colours: It has the appearance of a fortreſs, flanked with towers and baſtions to the right and left; and at bottom is a grotto, terminating in a dome of

of bold conſtruction. This fairy dwelling, this enchanted reſidence, or cave of *Fancy*, is the ſource of the *Arveron*, and of the gold which is found in the *Arve*: And if we add to all this rich variety, the ringing tinkling ſound of water dropping from its ſides, with the glittering refraction of the ſolar rays, whilſt tints of the moſt lively green, or blue, or yellow, or violet, have the effect of different compartments, in the ſeveral diviſions of the grotto, the whole is ſo theatrically ſplendid, ſo compleatly pictureſque, ſo beyond imagination great and beautiful, that I can eaſily believe the art of man has never yet produced, nor ever will produce, a building ſo grand in its conſtruction, or ſo varied in its ornaments.

Desirous of ſurveying every ſide of this maſs, we croſſed the river about four hundred yards from its ſource; and mounting upon the rocks and ice, approached the vault; but whilſt we were attentively

employed in viewing all its parts, aſtoniſhed at the ſportiveneſs of Fancy, we caſt our eyes at one conſiderable member of the pile above us, which was unaccountably ſupported; it ſeemed to hold by almoſt nothing; our imprudence was too evident, and we haſtened to retreat: yet ſcarcely had we ſtept back thirty paces, before it broke off all at once, with a prodigious noiſe, and tumbled, rolling to the very ſpot where we were ſtanding juſt before. It was a moſt fortunate determination, ſince if we had ſtaid an inſtant longer, it would certainly have cruſhed us by its fall.

THERE have been much reaſoning and debate, about the cauſes that produce theſe heaps of ice. But being for the moſt part ſeated at the bottom of the Glaciers, (of which, if I may uſe the expreſſion, they ſeem to lay the firſt foundations) it is probable that they are formed originally by an over-fall of ſnow, which

which being heaped together by degrees, becomes in a ſucceſſion of winters, a conſiderable maſs of ice; and ſuch collections are augmented, either by the cauſes which at firſt produced them, or by the continued rolling down of ſnows and ice, which come from higher Glaciers.

THE water of the *Arveron*, which runs out of this maſs, is excellent, and though as cold as ice itſelf, there is no reaſon to be afraid of drinking it, even when one is very hot; and this is a general excellence of all thoſe waters, which come from ice, when they are drank at the ſource.

WE took up ſeveral handfulls of ſand, to ſee if we could find any gold in it, but there was none; it is not however leſs certain, that there *is* gold, and gold of great purity too, in the bed of this ſtream; ſome perſons from *Geneva*, who

carried away ſeveral bags of its ſand, returned a ſecond time; but the orders ſince received upon this occaſion, have hindered any farther ſearch †. The inhabitants of *Chamouni* are carefully perſuaded they have a Mine of this metal, affirming that there are indubitable ſigns of it, though theſe are frequently effaced by changes, owing to the melting of the ſnows. They have alſo ſome *Marcaſites*, the traces of which, in like manner, are very ſoon deſtroyed; they nevertheleſs ſometimes diſcover them, and they offered us a conſiderable vein of this ſtone, (or metal, which-ever it be) but their expectations were raiſed too high, for our acceptance of the offer.

† Artificial Riches are neither abundantly poſſeſſed in this country, nor the general object of mens wiſhes. They live, ſays the ingenious Rouſſeau, to *enjoy Life*, and not to acquire wealth and excite envy: If ever they have more money they will grow *poor*; and of this they are ſo ſenſible, that they tread upon mines of Gold, which they are determined never to open.

MAJESTIC WALLS of ICE, AND GLACIER des BOSSONS.

A Proſpect of the Glaciers is ſo very entertaining, that notwithſtanding we had ſeen that of *Pelerins*, we were ſtill deſirous of viſiting that of *Boſſons*, which is the firſt we diſcern at our entrance into the valley of *Chamouni*. To come at it, we took the ſame road by which we entered, and paſſing by ſeveral habitations of the peaſants, we ſtopped at one of them, to obſerve a young Chamois returning from the paſture with the goats; they had taken it very young, at the foot of the

the Needles, and brought it up with the herd; its horns were juſt beginning to bud, its head was fine, its eyes full of fire, and every movement witneſſed agility and ſtrength. Providence ſeems to have formed this animal with ſuch a peculiar love of liberty, that it is hardly poſſible to confine it long; when it is once ſufficiently ſtrong, it conſtantly endeavours to eſcape into the crags of the rocks, and almoſt all the young ones they have taken, with a view of bringing them up tame, have made their eſcape, ſo ſoon as they were ſtrong enough to get away. The manner of taking them is ſingular; when the hunter has killed a female Chamois that ſuckles, he ſets it upon its legs again, as if it was ſtill living, and concealing himſelf under the belly of the dead Chamois, waits with patience till the kid returns to its dam; he then ſeizes the little ſtruggling animal, and conveys it home.

SETTING off again, we took the road acroſs ſome meadows, and over ſeveral beds of ſtones, collected by the violence of the torrents; when paſſing by the Glacier, already viſited, we ſoon began to mount, aſcending through the midſt of woods. It was not till after walking a good league, upon a pretty ſteep ſlope, that we obtained a view of thoſe amazing walls and buttreſſes, by which the Glacier is ſupported. They are ſolid maſſes of ice, which riſe up perpendicularly, like the walls of a prodigious citadel, built with ſtrong towers, that ſeem to be from about three to four hundred feet high. The upper parts of theſe enormous towers, are tranſparent, in the ſame manner, and for the ſame reaſon, that the ends of our fingers appear ſo, when oppoſed to a ſtrong light; we particularly admired a hole of an oval form, pierced through the wall, at an almoſt equal diſtance from each end of the range, towards the

top,

top, through which the ſky appears; and the ſun at a certain time of the day, having his rays collected by it as a ſpeculum, darts them in a bundle to the very bottom of the valley. Our road lay directly under this icey wall, but the apprehenſion of danger, in being expoſed to the fall of fragments from ſo brittle a fabric, made us draw more towards the right; we again therefore entered into the woods, and aſcending as before, found ourſelves at laſt upon the Glacier.

THIS Glacier, though leſs elevated, and leſs conſiderable than that *des Pelerins*, is nevertheleſs exceedingly worthy of curioſity, and we advanced upon the ice, which is ſufficiently difficult to get over, being in ſome places almoſt mountainous.

HAVING reached the height of the Glacier, we had a view of the whole valley of *Chamouni*, which preſents itſelf here in moſt agreeable perſpective; a proſpect

proſpect of the other Glaciers, and heaps of ice, that of the rivers which run from them; the little iſlands which they form; the cultivated fields; the tender verdure of the meadows; the contraſt of the dark green of the firs, with the yellow colour of the woods of larch trees; all theſe different objects, which terminated this vaſt field of ice, from which we ſaw them, formed together one of the moſt ſingular pictureſque landſcapes we had ever beheld: Above us we admired afreſh the majeſty of Mount *Blanc*, and could better judge from this, than from any other point of view we had yet come at, of its immenſe height, and of the abſolute impoſſibility of aſcending to its ſummit.

HAVING croſſed to the other ſide of the Glacier, we kindled a fire, and ſat down to dinner; immediately after which we haſtened to deſcend through the woods, to eſcape a violent ſhower and tempeſt, which

which ſeemed to advance upon us very faſt. We were overtaken, notwithſtanding all our expedition, but ſaved a part of the diſtreſs, by ſheltering ourſelves a while at the firſt houſe of the neareſt village.

THE rain now ſeeming to be over, we took advantage of the weather, and inſtantly ſet out again, but we were ſtopped near the border of a torrent, whoſe channel is generally dry. This torrent, which came from the foot of the Needles, was ſo conſiderable, that it was rather raſh for us to think of paſſing through: we nevertheleſs determined to attempt it, but we had not gone on far, when a perſon eagerly called out to us to return as faſt as poſſible; in fact, we ſaw ſuch a conſiderable body of water coming down, and with ſo much impetuoſity, that we ſhould probably have been overwhelmed by it; an accident which ſometimes happens to thoſe who are not unacquainted

quainted with the paſſage; for the ſwelling is often ſo ſudden, that it does not give time even for the croſſing it; it falls again indeed as ſuddenly, and we paſſed it a few minutes after. Its waters are ſo muddy, as to be almoſt black. The rain having again catched us, we were well ſoaked when we got to *Prieuré*, where the body of the tempeſt threatened to diſcharge itſelf. The flaſhes of lightening, with the burſts and rolling of the thunder, were almoſt without intermiſſion, and we were apprehenſive of ſome dreadful conſequences. The Prior and Vicar were at prayers in the church-porch, and the ſound of the bells *, mixed with the ſtorm and the thunder, had a grand effect.

SUCH

* It is uſual in Popiſh countries, to ring the bells of their churches, during a tempeſt, which by virtue of their baptiſmal conſecration, are ſuppoſed to have a power of diſperſing it.

SUCH were the intereſting objects which we ſaw in the valley of *Chamouni*, and upon our route. We may be bold to ſay, that except Mr. *De Sauſſure*, no perſon has yet viſited ſo many places in this country, or advanced ſo far into them; I ſhould nevertheleſs think my preſent ſet of Views defective, if I omitted to take a Drawing of the magnificent chain of *Needles*, and of Mount *Blanc*, ſeen from the Glacier of *Buet*, as it is deſcribed by Mr. *De Luc*, the height of which no perſon before him ever aſcended. As I purpoſe viſiting the mountain of *Sixt*, which ſupports this Glacier, with an intention of offering my Deſigns from it to the public, I preſume I ſhall give no offence, if in this place I premiſe Mr. *De Luc*'s own intereſting narrative of its diſcovery, printed in his elegant work, † *Recherche*

† It is much to be wiſhed this excellent work were tranſlated into Engliſh.

cherche des Modifications de l' Atmoſphere; more eſpecially as it is not in the power of every ingenious perſon to obtain a ſight of it. I at firſt intended only a very ſhort abridgment of his journey, but as this would be depriving my readers of a conſiderable deal of pleaſure from the peruſal of it, in his ſimple, unaffected, and yet ſtriking manner of deſcribing every object and occurrence, I ſhall retrench as little of the Narrative as poſſible; a detail of his experiments only upon the weight of the air *, which were the principal

* Having rendered the Barometer as complete as poſſible in its conſtruction, one great end propoſed by Mr. *De Luc* at preſent, was to confirm his method of determining the preciſe point upon any Thermometer, of whatever conſtruction, at which water boils, when the Barometer ſtands at twenty-ſeven inches.

During the courſe of theſe experiments, the ingenious Author has obſerved, that boiling water never exceeds a certain degree of heat, under the ſame ſtate of

cipal motives of this very learned and ingenious Philoſopher for aſcending to the ſummit of the mountain.

of the air at the ſame height, and that its variations upon a change of that ſtate, follow in a harmonical progreſſion, whilſt the correſponding heights of the Mercury in the Barometer are taken in arithmetical.

THE

THE GLACIER *of* BUET.

Journey of Monſieur DE LUC.

MR *De Luc* having many times gone over that part of the *Alps* (which is neareſt to *Geneva)* in the Barony of *Faucigny*, had obſerved many ſummits much higher than the *Canigou*†, but he notwithſtanding deſpaired of finding any that were proper for his experiments; the acceſſible parts of this portion of the chain being all too low, and the ſummits offering nothing

† A mountain in the neighbourhood of *Geneva*, upon which Mr. *De Luc* had already made ſome barometrical obſervations and experiments.

thing to his view but pikes in the form of obeliſks, the more ſloping ſides of which are caſed with ice. But he had remarked *out* of this chain, and not ſo far from *Geneva*, a mountain whoſe ſummit, although always covered with ice, appeared to him acceſſible. It may be ſeen from the weſtern bank of the lake, near *Geneva*, between thoſe of *Mole* and *Voirons*, but yet at a conſiderable diſtance.

He endeavoured then to inform himſelf of the name of this mountain, the place where it was ſituated, the road neceſſary to be taken to arrive at it, and whether or not it was to be aſcended; but no perſon could be found that knew it, nor could he gain the leaſt intelligence with reſpect to any of his queſtions: He was obliged therefore at all events to take a Journey in ſearch of it, and endeavour to find it himſelf.

Having

HAVING mentioned this deſign to his brother, he conſulted with him which road was beſt to purſue, and engaging his aſſiſtance in the excurſion, they ſet out from *Geneva* together upon the 24th of Auguſt, 1765, directing their route by *St. Joir*; but upon their approach to this town, they loſt ſight of the mountain they were in ſearch of, though it was at this time clear, that it was neceſſary to gain the valley of *Taninge*, and they diſcovered it in fact at the bottom of that valley, as ſoon as they entered it; when ſtopping to examine it attentively with glaſſes, they were now confirmed in the opinion that it was acceſſible, even to its ſummit, and by that very ſide too which fronted them.

BUT what errors does not diſtance occaſion? that which appears the moſt inacceſſible when we are far diſtant, affords ſometimes the eaſieſt aſcent; whilſt we are frequently ſtopt ſhort in thoſe places where

where we could foreſee no difficulty at all; even at *Taninge* they ſtill judged their project eaſy, but the nearer they approached the mountain, the ſteeper it appeared; in the mean time they had no idea of the kind of difficulty which ſtopt them in the end.

As they approached the town of *Samoing*, they obſerved the icey ſummit of the mountain (which was properly the object of their journey) lower by degrees with reſpect to a certain line of rocks, which had till then appeared to be a part of it; and beyond *Samoing*, their mountain was concealed by one nearer to them, which it was neceſſary to get round: Night approached; at the ſame time the road became more difficult; and they were much embarraſſed, when they fortunately overtook a peaſant travelling the ſame way; he informed them that the village of *Sixt* was at the bottom of the mountain, and that he was going thither himſelf. They fol-

followed him; and after having croſſed by *Vallon*, a village ſituated in a delightful plain, they entered into a defile, which conducted them along the banks of the *Giffre**, to the village of *Sixt*, where they arrived at night, after walking eleven hours.

REFRESHMENT and repoſe were highly requiſite; and their guide gave them no hopes of finding any accommodation, but at the Abbey, the Canons of which are Lords of the place; but the Convent was now ſhut. Emboldened however by neceſſity, they had the good luck to make themſelves heard, laid open their diſtreſs, and were received with all imaginable hoſpitality.

WHILST their ſupper was preparing, theſe gentlemen had the politeneſs to ſend

* This river has its riſe in the very mountain to which they were going.

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for ſeveral perſons of the village, who were acquainted with the mountain. But the paſtures (as they call them) being no more than half way up, they could ſay nothing concerning the ſummit our travellers were ſo deſirous of viſiting; one of theſe people only offered to conduct them to the higheſt granges of the mountain, where they poſſibly might find a ſhepherd better able to direct them. It was determined then to ſet out with this perſon the next morning for the diſcovery; and their generous Hoſts ſupplied them with proviſions neceſſary for the expedition.

THE hamlet they were to go to, is called *les Granges des Communes*; it is a ſtring of huts ranged in the direction of the ſlope upon the mountain, under a little rock; theſe huts conſiſt only of an incloſure of ſtones placed one upon another, without mortar, to the height of about three feet; whoſe roofs are covered with ſhingles, or flat pieces of deal, ſhaped like

like tiles; the ridge of theſe roofs is in the ſame direction with the line of the huts, which are ſo low, there is no ſtanding upright under them, but in the middle; and in theſe, inconvenient habitations, the peaſants of *Sixt* come to paſs the time, an interval indeed of no great length, whilſt the paſtures are free from ſnow. In fact, it would be but a uſeleſs trouble for them to beſtow more care in their conſtruction, ſince in ſpite of the connection with each other, and the order of their arrangement, which contribute to ſupport them, and notwithſtanding the protection of the little rock which covers them on that ſide next the mountain, they are very often cruſhed by the fall of an *Avalanche*; and this muſt equally happen, were they built with ever ſo much coſt.

THESE paſtures are overlooked by rugged precipices, formed out of the ruins of the upper part of the mountain;

and their craggy ſlopes, with the rocks, which command them, form a perpendicular height of more than three thouſand French feet, for a prodigious extent along its ſide; almoſt all this ſteep ſurface is covered with ſnow, which is accumulated by the winds: when the depth of the ſnow is not conſiderable, it gradually melts away, without rolling down in maſſes; but during the winter ſeaſon 1769 and 1770, there fell ſuch a prodigious quantity of ſnow, that the maſs could no longer be held up, and its parts being contracted by the long ſeverity of the froſt, and rendered leſs tenacious, it tumbled all at once upon theſe paſtures, which it entirely covered, and its extremity reached the ſlope beyond the plain. The effect of the air, preſſed by this *Avalanche* of ſnow, was ſo terrible, that the hurricane occaſioned by it forced itſelf a paſſage through a foreſt of beeches and firs, which covered the ſlope, and did not leave a tree ſtanding in its way; it even

ven ſtopped the courſe of the *Giffre*, (which flows along the valley) and overturned on the oppoſite bank, a number of trees and granges, much ſtronger than thoſe, which remained cruſhed by the *Avalanche* upon the *Paſtures des Communes*.

As they were to aſcend the very rocks over which this *Avalanche* came, it may eaſily be conceived how ſteep and rugged a road they neceſſarily had to paſs; it muſt be difficult to ſecure their feet, where even the ſnow failed of a ſupport. The very firſt appearance of theſe rocks, upon their arrival at the *Granges des Communes*, pointed out the neceſſity of their placing an entire confidence in their new guide, ſince they were abſolutely to be directed by his judgment: He joined them, and they now began the enterprize.

But what gave them the moſt uneaſineſs was, that they had entirely loſt

ſight of that frozen ſummit, the object of their journey. Their guide, who, though an inhabitant of the mountain, had never climbed theſe rocks, pretended it was ſtill higher; and that when they were once beyond them, they ſhould ſoon arrive at the ice. Committing themſelves therefore to his conduct, they continued mounting for near four hours, by paſſages, in which they were often obliged to help themſelves up with their hands, and frequently to uſe great precauton if they wanted only to turn their heads to look back. An impatience however to diſcover what theſe rocks concealed, ſtill urging them to get the better of theſe obſtacles, they arrived at laſt at their top; but what was their ſurpriſe and chagrin, when they perceived themſelves upon the brink of one of the moſt frightful precipices*, which ſeparated them from

* The Line of Rocks they were upon, is called *Grenier des Communes*, and *this* is likewiſe covered with

from the ſummit they came in ſearch of.

THEY ſtood motionleſs a conſiderable time, with admiration as well as horror. Mount *Blanc*, appeared before them in all its majeſty: this, without ſaying too much, is the very expreſſion it naturally inſpires; even the precipice which ſtopt them was majeſtic. Let any one figure to himſelf a ſteep of more than three thouſand ſeven hundred French feet, encompaſſed round with pointed rocks, and upon which every ſtep they ſet, it ſeemed as if the next would carry them down into the air beyond its edge, and the very idea will be enough to make him ſhudder; and yet the ſight having dwelt a while upon theſe frightful naked pikes, was ſoon relieved, and felt an agreeable repoſe at their feet. Rich ſmiling paſtures,

with a Line of ſmaller Rocks, the higheſt of which is called *Grenairon*, or the little *Grenier*.

ſurrounded by woods, with here and there a ſcattered grange, ſoftened the horror of their ſituation, whilſt the moſt ſolemn ſilence was interrupted only by the daſhing of caſcades from rock to rock; the lowing of the herds could not reach them.

As ſoon as they could diſengage their attention from objects ſo new to them, though not unacquainted with mountains, they ſhowed their guide the ſummit they were deſirous of getting to, but it was now too late; half the day was already ſpent; and though it appeared to them, that by only turning the precipice on the left hand, they might arrive at it, the journey was too long and hazardous for the remainder of the time; and as they were hindered from purſuing the intended plan the next day, by an accident which happened to their thermometer in climbing the rocks of *Grenier*, they now returned back again to *Geneva*.

It

† It was not till the year 1770, that they again entertained hopes of accompliſhing their deſign, when they ſet out upon the 24th of Auguſt, and arrived the ſame evening at the Abbey, where they were received with a double warmth of civility by their friendly Canons: the converſation ſoon turned upon the diſappointment of their former journey, and they were earneſt to prevent the ſame diſagreeable event a ſecond time; but as the Chamois-hunters are generally employed at this ſeaſon about getting in their harveſt, our travellers were under the neceſſity of taking up with ſuch guides as they had before. Leaving the Abbey therefore at four the next morning, they reached the *Paſtures des Communes* about ſix, where a young man at the grange belong-

† From the beginning of this paragraph to page 143, is added from Mr. *De Luc*'s Narrative, printed in his *Recherche des Modifications de l' Atmoſphere.*

ing to the Canons, an apprentice to a hunter, joined the guide who came with them, and promiſed to conduct them to the ice. The way he led them was over ſeveral ſlopes of frozen ſnow, till he brought them to the middle of the range of *Grenier*, at which place the rock is ſo prodigiouſly ſteep, that it was aſtoniſhing any perſon ſhould have the hardineſs to think of climbing it; but the hopes that it would lead them to the icey ſummit they were in ſearch of, and the deſire of completing their experiments, conquered every difficulty. They mounted from one jutting point to another, up the clefts of an immenſe wall of ſtone, which was almoſt perpendicular; and after infinite difficulties, which were increaſed by their humanity to a little dog that followed them from the Abbey-grange, whom in pity to his cries, they were frequently obliged to hand from one to the other, they had the mortification to find themſelves at laſt on the very ſame precipice

they

they had been at in their journey five years before. Giving up therefore their expectations of attaining the height they wiſhed to come at, after picking up ſeveral beautiful impreſſions of the *Cornua Ammonis*, at *two thouſand ſeven hundred and eighty-two* Engliſh yards above the level of the *Mediterranean*, they determined to reſt ſatisfied with making their experiments, upon the ſummit of *Grenairon*. This rock, which crowns the ridge of rocks they had aſcended, is ſeparated in ſeveral places by large openings and fiſſures, ſeveral of which were yet filled with ſnow, whilſt in others it conſiſts of rugged pikes, whoſe rough projecting points were the means of their aſcent; it was every where difficult: and their guides were ſo intimidated at one paſs, that they refuſed to follow them *: this was no diſcouragement

* A friend who came with them from *Geneva* had been obliged to deſiſt, and go down again, before they had attained the ridge of *Grenier*.

ment to theſe Gentlemen; they ſurmounted it, and ſhame prevented the return of their conductors, they followed and attained the ſummit.

But here an accident befel them, which had like to have been fatal: the young man, who had conducted them from the grange, fatigued with the labour he had undergone, and in a fit of laughter at the folly of taking all this trouble to boil a little water, threw himſelf unluckily with all his weight upon Mr. *De Luc*'s foot, who was ſtretched at his length upon the rock, attending the fire for their experiments; the care of theſe prevented his attention to the hurt for ſome time; but no ſooner had he finiſhed his obſervations, than upon riſing up, he found it impoſſible for him to ſupport himſelf, and he was ready to faint with pain: all hopes of reaching the ſummit were now at an end; but this was the leaſt of their miſ-

fortune

fortune; it was neceſſary to go down again: he remained ſeveral hours incapable of ſupporting the very idea of it, till neceſſity at laſt got the better of every thing. It was impoſſible for them to continue where they were all night; bad weather might come on; the wind, the cold, the rain, and the clouds, might expoſe them to every kind of evil; it was abſolutely neceſſary to quit a region ſo liable to ſtorms; he dragged himſelf along therefore, by the aſſiſtance of his brother and one of the guides, (for the author of the misfortune had abandoned them*, to go down and milk his cows) deſcending about fifteen hundred perpendicular feet, the greater part of which way he was obliged to ſlide upon his back, not being capable of ſetting his foot to the ground.

Night

* Mr. *De Luc* very candidly imputes this behaviour to the man's miſtaken duty to his Maſter, rather than to want of feeling for his diſtreſs.

Night came on; they were at the moſt difficult part of the deſcent, and it was determined upon conſultation to go down no farther, but to remain at this height, though the ſituation of the place did not afford the leaſt ſhelter, and was ſurrounded on every ſide with ſnow. Mr. *De Luc*'s ſpirits were exhauſted, and he had long been wiſhing his companions to ſtop, though he had not confidence to propoſe it, from the dangers they muſt be expoſed to in ſleeping ſo near the clouds; but every limb had now tired in its turn; he was quite worn down, and moreover ſuffered inexpreſſible anguiſh: all that could be done was to make a barricade of fragments, to prevent their rolling down the ſteep, ſhould they change their ſituation during ſleep, and to cover their legs, which were moſt ſenſible of cold, with the table-cloth that wrapped up their proviſions. The night moſt fortunately proved calm and fine, and the fatigue they had undergone procured them repoſe for

ſome

ſome hours; but they were awakened by the ſeverity of the cold, and there was no walking to procure themſelves warmth: the day was never ſo long in coming, and the night ſeemed never to have an end. They ſet out again at day-break, as benumbed as Marmotts, and it was ſome time before they could recover the uſe of their limbs: happily the repoſe he had enjoyed, conſiderably leſſened Mr. *De Luc*'s pain, the foot indeed was blown up, but he could ſtand upon it, and deſcended to the *Granges des Communes* with very little aſſiſtance, where they reſted ſome hours, and arrived at *Sixt* about noon.

As this day happened to be a feſtival, the inhabitants of the neighbouring villages were aſſembled to hear Maſs. The ſight of ſtrangers coming from the mountains, and the inſtruments, drawing their attention, all concluded they were come in ſearch

ſearch of Mines†; it was for ſome time to little purpoſe to explain the nature of their experiments; they ſmiled in anſwer to them, that they knew better; ſome few of the more intelligent however at laſt underſtood them, and upon their pointing to the Icey ſummit, they now firſt learned, that the Mountain they had made two fruitleſs expeditions in ſearch of, was the Glacier of *Buet*; the ſame perſons likewiſe mentioned the hunters who were capable

† Satisfied with little more than the *natural* advantages of Society, which are truly Bleſſings, this happy People look upon the introduction of new arts with an eye of jealouſy, as tending to deſtroy Contentment, by increaſing mens immaginary wants; but they dread the vain diſcovery of thoſe hidden treaſures, which have ruined every country they are found in, and have rendered ſocial life an evil to a large proportion of mankind in general,

Aurum irrepertum (ut ſic melius ſitum
Quum terra celat) ſpernere fortior
Quam cogere humanos muſus
Omne ſacrum rapiente Dextrâ.

pable of conducting them to it, and in about a month after, they had the ſatiſfaction of meeting with one who had been at the foot of this very Glacier, in purſuit of a wounded Chamois.

THE route which they took at laſt was by *Granges des Fonds*, a hamlet ſituated at the bottom of that frightful precipice they had ſurveyed from the edge of thoſe Rocks above the paſtures *des Communes**: Setting out then from the abbey of *Sixt*, at two o'clock in the afternoon, they aſcended all the way through roads which gradually prepared them for the grandeſt, the wildeſt, and the moſt romantic proſpect that can be imagined, without the leaſt mixture of horror to diſturb the contemplation of its various beauties. The eye was never ſatisfied with looking at the different views which offered in their route: the path they followed was acroſs

* Page 132.

acroſs the middle of the hill, through a narrow valley ſhadowed upon either ſide with foreſts of firs and beach trees; whoſe dark maſſes, ſeparated here and there by rocks, and paſtures glittering in the ſun, formed a moſt agreeable oppoſition to each other, whilſt different ſheets of water pouring from the heights of the mountain, collected in a torrent at the bottom of the valley, now and then appeared, but was more frequently concealed by interwoven boughs, and foliage projecting over on each ſide, or by the rocks under which it is precipitated, and theſe pictureſque views were continually varied, from the winding contour of the valley which they followed.

THE ſoil of *Fonds*, is extended almoſt horizontally towards the rocks which well nigh environ it, but falls away with a ſudden ſlope on the ſide of the valley, by which it is approached; and this hanging ſteep as we aſcend, like the curtain of a for-

a fortified town, hides the place entirely. Within a few paces of the top of this rampart, we perceive nothing; but after taking five or ſix ſteps more, the view enlarges all at once, and opens into the moſt ſuperb amphitheatre, diſcovering all thoſe beautiful paſtures which are ſurrounded by it. The air was clear when Mr. *De Luc* and his brother gained this delightful plain; it was half an hour after four o'clock, and the ſun ſtill enlightened one part of the romantic ſolitude. It is impoſſible to expreſs the emotions which they felt at this view; they could not ceaſe admiring it, with mutually repeated recognitions of its beauties. They were here near the higheſt grange of *Fonds*, a thouſand eight hundred and ſixty-ſix French feet *above* the Abbey; and four thouſand two hundred and thirty-ſix *below* the ſummit of *Grenairon*, which commands one ſide of this amphitheatre, whilſt the oppoſite ſide is crowned by the Glacier of *Buet*, which is elevated

ted upwards of a thouſand feet higher ſtill. The eye takes in the whole of this extent, nor could any opening of this ſweeping girdle be diſcerned, except above the tops of thoſe declining woods through which they had aſcended.

THE remainder of the day was employed in walking over, and contemplating this beautiful retirement; enquiring of their guide of all thoſe extraordinary objects which preſented themſelves around them; above all, the hiſtory of the people inhabiting theſe mountains intereſted them extremely: it is a corner of the world but little known, though well worthy the enquiries of a philoſopher. We may here diſcern the real wants of man, the ſum of all his neceſſary cares, and how much the force of habit is capable of effecting; but above all, how ſweet that calm repoſe of mind, when the ſoul is in the hands of nature only; unanxious about idle ſpeculations, and removed from the ſolicitudes

of

of artful life, they tread that ſtreight and even path which ſhe herſelf has pointed out to them, beyond the labyrinths of ſociety, and unſeduced by its corruptions.

THESE people have their troubles it is true, becauſe they are men; but they neither anticipate them by reſtleſs deſires, nor aggravate them by reflection; they hope, becauſe they expect every thing from the Author of Nature; and a ſteady firmneſs of reſignation (that laboured effort of ſtoic philoſophy) is here the natural effect of their *Belief*; a full perſuaſion, that the evils they experience, are diſpenſed to them, by the very ſame hand, which bountifully diſpenſes every bleſſing*.

THE

* Notwithſtanding the rocks of this country appear to be ſteep and abſolutely inacceſſible, an attentive ſurvey of them will diſcover a number of projections, which Nature, who neglects nothing, has covered with verdure; and no ſooner is the ſnow melted, than theſe

THE coldneſs of the evening having obliged theſe gentlemen to retire, they took poſſeſſion of a cabin which its owners had not come to occupy, what a lodging for the natives of a city! It was rather a cage than a houſe, conſiſting of the bodies of

theſe mountaineers who are acquainted with the paſſages that lead to them, conduct thither their flocks, with the lambs that have been dropt during the winter. Each pariſh has a mark to know their own, and they leave them there in common; the feed is much higher flavoured than in the vallies, and the ſheep continue upon theſe ledges of paſture, till they are covered with ſnow, when they return of their own accord to their reſpective hamlets. They count but little of the lambs that were not fallen before the flocks were driven into theſe places, not that they have any thing to fear from bears and wolves, againſt which the precipices are a ſufficient protection; but precipices are no protection to theſe animals againſt the Eagles, of which there are very large ones amongſt the rocks; Mr. *De Luc* ſaw ſome the next day, hovering and watchiug for the Marmotts; and the guide aſſured him, he had found a feather of the black eagle two feet and a half in length.

of fir trees, rough and unhewn, placed horizontally acroſs each other at right angles, and covered with flat pieces of the ſame wood; theſe huts are in general not more than five feet high, to the top of the roof; ſo that it is impoſſible to ſtand upright in them; the intervals between the trunks of the firs let in a ſufficient quantity of light, and it is by theſe openings, and by thoſe of the roof, that the ſmoke eſcapes when they make a fire. The door of theſe cabins is never locked, though the furniture of them is not removed, and our travellers found here the ſeats, the table, and the couch of the owners: they lighted a fire, ſupped, and prepared their bed, which was of boards roughly hewn, fixed up near the roof, and covered with dried leaves; ſome practice is required to get into it, and the lodger ought by no means to walk in his ſleep.

* Before they went to reſt they conſulted the Barometer; it was fallen ſince their arrival; ſo that notwithſtanding the ſky was yet clear, they were not without uneaſy apprehenſions about the weather. They could have ſlept here with leſs inconvenience from the cold, than they had reaſon to imagine, but were moſt wretchedly tormented with fleas; which though undoubtedly they did not ſpare their friend the mountaineer, appeared to give no ſort of interruption to the ſoundneſs of his repoſe. They cloſed their eyes however about midnight, but were preſently awakened by the pattering of a heavy ſhower upon their roof; the thunder ſoon was heard to roll amongſt the rocks; the winds blew hollow; and the fall of rain, increaſed the pouring and daſhing of caſcades; in ſhort the lowing of the cattle, with the piercing

* From this paragraph to the 154th page, is added from the original Narrative.

piercing ſcreams of women calling up their ſtraggling cows, whoſe voices were re-echoed from the mountains, all together formed ſuch a confuſed, diſmal noiſe, as by no means tended to compoſe their ſpirits.

They could lie no longer; they got up, rekindled their fire, and ſat down before it, eagerly wiſhing for the approach of morning. The Barometer was ſtill falling; but when day appeared, the rain* was over; the ſky was not entirely co-

 vered,

* It may give the reader an idea of the rich covering of theſe paſtures, that notwithſtanding the vaſt quantity of rain which fell, ſome peaſants who continued all night upon the mountain to attend a ſick cow, had been abſolutely ſheltered from it under the ſpreading branches of a large fir tree; they kindled a fire at its foot during the tempeſt, and laid them down to ſleep with the utmoſt tranquility; it was not long before the fire reached the trunk, and they gave themſelves as uſual no trouble in extinguiſhing it. Not far diſtant from this place, there ſtood another moſt magnificent fir,

vered, yet the wind blew ſtrong at South, and drove ſome heavy clouds above their heads, whilſt others riſing from the valley, rolled

fir, of about twelve feet in girt, under which Mr. *De Luc* and his brother happened to take ſhelter the following afternoon; the former ill requited tree continued burning, but was undermined on that ſide next the ſteep, when after boiling the water at it for their experiments, they rolled it flaming down the precipice. A mountaineer makes no ſort of ceremony about burning down a tree to warm himſelf, and in theſe ſituations there is little danger of the fire's being communicated from one to another. As theſe gentlemen were looking out of their hut the next night, they were entertained with the ſudden appearance of a bright ſparkling flame, riſing up upon a neighbouring eminence, in the form of a pyramid: it was an old fir tree ſet on fire upon a like occaſion, whoſe pendant ragged moſs, and withered branches, were inſtantly in a blaze. It muſt have been a fine object by itſelf, amidſt the darkneſs; but the gleam of yellow light it threw upon the overhanging rocks above, and upon the tops of woods below it, the partial diſtant gleams upon the cattle, with the glittering of caſcades, give us an idea of the ſweeteſt

rolled along to the foot of the rocks, and ſometimes filled the area of the paſtures.

In this ſtate of the weather it was impracticable to aſcend the Glacier; and to go back to *Sixt* would be loſing the whole day, ſhould it afterwards prove fine. It cleared up about noon, yet continuing ſtill to rain at intervals, they reſolved to paſs another night upon the mountain; but this too proving ſtormy, and the Barometer not riſing, they went down again to the Abbey with chagrin. The next morning their friends prevailed with them to ſtay yet *one* night longer; they engaged it would be fair, and never was the barometer ſo little conſulted; it roſe however in the afternoon of the day following, and the ſame evening they returned to *Fonds*.

ſweeteſt ſolemn night-piece in nature; and might furniſh a companion to that bright expanded moon-light at the concluſion of the eighth book of the Iliad.

THEY now ſcarcely ſlept a wink all night, the pleaſure of looking at the ſtars which promiſed a fine day, kept them waking, and often times allured them out of the hut. They could not wait for the morning to begin their journey; it delayed their ſatisfactions too long, and they haſtened to aſcend the mountain, with that pleaſure which is always doubly reliſhed after difficulties. Propoſing to make ſeveral different experiments, at a conſiderable height before they reached the ſummit of the mountain, the Plain de *Lechaud* (where they arrived at ſeven o'clock), was the place appointed for theſe obſervations. It is a beautiful paſture, abandoned wholly to the Chamois, from the impoſſibility of getting up either cows or ſheep, beſides that this part of the mountain being far above the foreſts, it would be too difficult to build lodges, or procure wood to burn.

No ſooner had they gained this plain, than they ſaw three of its native Burghers, who had nothing to fear from them, their guide being unprovided with his gun*, a

* The Chamois-hunters gun is of a very peculiar conſtruction, it conſiſts of a ſingle-rifled barrel with two locks, one before the other, and receives two charges of powder and ball at the ſame time, the bullet of the firſt charge being either ſcrewed down, or rammed ſo tight, as to ſerve for a breech-pin to the ſecond charge, and prevent the communication of the fire to it, upon pulling down the cock neareſt the muzzle. The difficulty of purſuing theſe animals over the heights of the mountains, renders it neceſſary to have the piece as light as poſſible, conſiſtent with the advantage of a double charge.

The Chamois ſeems to hold a middle place between the goat and the deer, and to exceed in ſtrength and agility together, almoſt every other animal of its ſize: it is aſtoniſhing to ſee with what ſwiftneſs they bound along the ſteepeſt ſlopes upon the edge of precipices, to eſcape purſuit: but its ſwiftneſs is its chief ſecurity, for there are but few places, over which the Chamois is capable of going, where an expert hunter is not ca-

pable

circumſtance, which though regretted by the hunter, rather heightened the pleaſure of ſight to theſe gentlemen, as the hiſtory of the perſecutions thoſe poor animals ſuffer, with which their guide was often entertaining them, had ſtrongly moved their pity and compaſſion. After having reſted

pable of following. Theſe hunters always carry with them a pocket teleſcope, and having gained a ſuperior eminence, run over the moſt elevated paſtures with their glaſs to find the game, which they endeavour to come upon unawares, but the leaſt noiſe is ſufficient to give the animal an alarm, when it flies with a prodigious ſwiftneſs; the ſkill and addreſs of the hunter is then ſhown in driving it upon ſuch narrow ledges, as lay the timid creature under the neceſſity either of leaping down a precipice, or of preſenting itſelf trembling before him: it ſometimes indeed in ſuch a ſituation turns ſhort on a ſudden, and endeavours to dart paſt him; in which caſe the hunter himſelf is in no little danger of being precipitated down the ſteep, if he has not time to ſlip aſide, or cling cloſe to the rock. But if the Chamois remains in ſight of the hunter but one moment after it has paſſed him, its reſolution does not ſave its life.

reſted no more than three quarters of an hour, in the higheſt part of this paſture, they again continued their walk. The road was always entertaining from the variety of its plants, its ſoil, and its appearance; though in all theſe, there was nothing perfectly new to them: but after having left the plain *de Lechaud*, a very little way behind, a number of circumſtances conſpired at the ſame time to excite the moſt agreeable ſenſations.

THE ſun now roſe upon them in its ſplendour; the air was calm, and of a ſerenity unknown below, upon the plain; and they advanced ſo ſenſibly, as to perceive the effect of every ſtep upon the ſurrounding objects: having climbed an eminence which ſtood wholly by itſelf, the neareſt objects ſeemed to ſink under their feet, and they were continually diſcovering new ones, ſcene behind ſcene, in almoſt endleſs perſpective; whilſt a mixture of the ſtrongeſt brighteſt lights, with

large maſſes of ſhade which were ſoftened here and there, by the interpoſal of a thin light vapour, wonderfully ſeparated every part of this changeable progreſſive picture*. They had now been walking more than

* As the ſun was now but very little elevated above the Horizon, the long extenſion of the ſhadows undoubtedly contributed beyond every other advantage to preſerve the *Keeping*, in this boundleſs proſpect; whereas in Mr. *Bourrit*'s view from one of the Needles, the ſhadows muſt have been comparatively ſhort, the ſun being then not far from the Meridian, and the Air, at the ſame time was perfectly free from the leaſt hazineſs. *See page* 81.

It has long been obſerved, that it is impoſſible to paint the brightneſs of Noon, from an imperfection in the colours of the pallet; but beſides this defect in the *materials* of imitation, Nature herſelf with all that glare about her, is not ſo well underſtood; we are deceived in diſtances, becauſe every thing is brought forward, and crouds upon the eye; and thus we ſee things ſeparate which are joined, or connected which really are ſeparate; it is a *Principle* therefore in copying nature that a proſpect over a large tract of country, eſpecially from an extraordinary eminence, can never

than three hours in a very fatiguing road; notwithſtanding which, whether it was owing to the ſatisfaction of attaining their end, and in ſo favourable a moment; or the pleaſure of extending their proſpect every inſtant; or to a phyſical effect of the purity of the air they breathed, or all together, they felt ſuch an ardour in the attempt as nothing could reſtrain.

THEY enjoyed for two hours, this ſenſible ſucceſſion of new objects without any other inconvenience than that of walking

never have a good effect, though taken with the *utmoſt* exactneſs, when the ſun is high. The ſhadows of objects may be as broad, and even ſometimes broader at noon, than either in the morning or evening, but the ſhadows at this time being ſhort, confine the effects almoſt to their reſpective particulars; whereas a length as well as breadth of ſhadow, ſeparates the groups better, and ſtretches acroſs the piece ſo as to diſtinguiſh and throw off the ſeveral different *Grounds*.

up an exceeding ſteep ſlope; which was nothing to their ſpirits and reſolution. But their ſituation was ſoon changed; unforeſeen difficulties occurred, and the raviſhing delight they ſo unexpectedly enjoyed, was to be amply paid for.

CON-

CONCLUSION

OF THE

Journey to the GLACIER *of* BUET.

THUS far Mr. *De Luc* and his brother had aſcended by the South ſide of the mountain, either upon a ſteep Down, or over ſloping ridges of ſmall ſtones ſtrewed with thoſe minute plants which grow for the moſt part, only upon ſuch eminences. This front not being very broad, they could diſcover to the Weſt, the whole ſpace between them, and the

Jura;

Jura; and to the Eaſt one part of the chain of the *Alps*, whoſe pikes roſe gradually into view, in proportion as our travellers advanced in height; but turning now towards the weſtern front, upon which the mountain is much more extenſive, it entirely barred from them the proſpect on the ſide of the *Alps*, and they were ſo much employed upon the road itſelf, as never once to think of looking behind them.

They ſoon began to approach the ſnow, and after that the ice at the foot of the Glacier of *Buet*; which is ſaid to take up the whole ſummit of this mountain. It was at this time covered with ſnow; that which had fallen in the preceding winter not having been entirely melted, during ſummer; and there were ſtill ſome remains of the new. The ſurface of this ſnow was very hard, as it had frozen all the preceding night, and the ſun had not yet ſhined upon it. They had foreſeen the

the difficulty ariſing from this circumſtance, and to guard againſt it, were provided with thick woollen ſocks† to put over their ſhoes, by means of which, and their ſtaves pointed with iron, they preſumed it poſſible to ſtep with the utmoſt ſecurity.

THIS invention was applauded for ſome time, and they aſcended firmly, without ſliding, up a very riſing ſlope: but it became at laſt ſo extremely ſteep, that all at once their feet ſlipped from under them, and without the aſſiſtance of the pointed ſtaff, which forced itſelf into the cruſt of ice, and kept them up, they inevitably muſt have been precipitated headlong, to the *Granges des Fonds*. The ſpace they had to paſs upon the ſnow, in the front of this precipice, was in fact of

† They had before experienced the inconvenience of cramps faſtened to the ſhoes, which were apt to turn upon the foot, and deceive them.

of a conſiderable width, and as the ſlope of the declivity became ſucceſſively leſs ſteep, there was no ſort of danger in it, with a very little preſence of mind.

NOTWITHSTANDING this, they could not have been able even now, to reach the ſummit, without their guide, their ſhoes being abſolutely improper for ſuch an undertaking; whereas the Mountaineer, with ſoles of a prodigious thickneſs; and at the ſame time filled with nails, drove the ſides of his ſhoes into the ſnow every ſtep he ſet, as he went up aſlant, and theſe impreſſions upon the frozen cruſt which ſecured his own feet, formed a kind of ſtairs, by which our Travellers with the ſupport of their ſtaves were enabled to follow him. But this circumſtance which anſwered very well as they aſcended, would have been of no ſervice to them in coming down again, and they dared not to have run the hazard of proceeding, if they had not been fully perſuaded

ſuaded that the ſun in turning to the weſtward, would ſoften the ſurface of the ſnow, upon that ſide of the mountain: ſatisfied by this reflection, that they might deſcend again with ſafety, their minds were perfectly at eaſe, and they gave themſelves entirely up to thoſe ſenſations which the nature of the place impreſſed upon them.

It is hardly poſſible for words in any degree to explain what they felt, much leſs to excite emotions equal to their feelings, and it would be folly to preſume they could convey preciſe ideas of them to the Reader: Not a ſound was heard to interrupt the univerſal ſilence——no *reaſoning* was required, to prove theſe heights were never made to be inhabited. Their guide was equally a ſtranger to them with our travellers; the Chamois never come there; and of conſequence no hunter ever climbed ſo high. They are not however

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abſolutely deſtitute of life, as numbers of thoſe little flies the Naturaliſts call *Tipulas*, were ſeen, and ſome few bees; but the latter animals were now dead; theſe flying about the neighbouring rocks, to regale upon the flowers of *Genepi*, are frequently ſurpriſed by ſtorms, which hurrying them up the Glacier, they muſt periſh almoſt inſtantly.

THEIR ſentiments upon this profound ſolitude, are in the number of thoſe it is eaſy to communicate to others; but theſe by no means can convey a full idea of their ſituation. They found themſelves upon an immenſe extent of poliſhed ſnow, the purity, and whiteneſs of which, was no where ſullied. The rays of the ſun which now began to ſhine upon it, reflected from the ſnow directly oppoſite, gave them an opportunity of ſeeing how its poliſh was in part brought on, and this gradual diſſolution of its ſurface muſt extend it in ſucceſſion to the whole.

THEY

THEY ſaw no other objects than the Heavens and this ſnow; the latter of which was rounded off in ſuch delightful eaſy ſwelling volumes where they met each other, as perfectly to reſemble thoſe fleecy ſilver clouds, ſupported in a ſerene ſky, whoſe majeſtic precipices the imagination wanders over with ſo much pleaſure; their ſituation here appeared to them the ſame, as the ideas it excited were entirely ſimilar. They ſeemed ſuſpended in the air, upon one of thoſe majeſtic clouds; and what air! never had they till then, beheld it of ſuch a colour; it was of a lively, yet at the ſame time a deep blue, producing a kind of *ſenſation* of Immenſity, it is impoſſible to explain. This deep full colour of the ſky, was doubtleſs owing to the extraordinary purity of the air itſelf, as well as the thinneſs of that medium of vapours, (in compariſon of their denſity upon the plains) which

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interpoſed between their eyes and the obſcurity and darkneſs of infinite ſpace. At the lower part of our Atmoſphere, the colour of the air is always rendered more or leſs faint, from the great quantity of vapours floating in it, though they certainly contribute to diſperſe the light, with more advantage. The ſky in general appears to us of a very pale blue, it becomes the deeper ſometimes as the air is clearer, but it never even approaches to that lively, ſtrong, full colour, in which theſe gentlemen now ſaw it.

It was almoſt noon, when they attained at length the ſummit of the Glacier, and raiſing all at once their heads above the ridge of that curtain which had long concealed from them the eaſtern part of the horizon, they inſtantly diſcovered the immenſe chain of the *Alps*, to an extent of at leaſt fifty leagues; towards whatever point they turned their eyes, the horizon was covered with mountains.

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The boundary of their ſight to the Weſt was doubtleſs nothing, but the thickneſs of the air itſelf; for they were ſo much raiſed above the chain of *Jura* at thirteen or fourteen leagues diſtance, as to have diſcerned the plains of *Franche Compté* and of *Burgundy* beyond it, if the air had been ſufficiently clear. Their proſpect to the South-weſt extended as far as Mount *Cenis*, and upon the North-eaſt probably to *St. Gothard:* in ſhort, they commanded in a manner at one view, all the ſtreights of the *Alps*, of whoſe pikes there were but few which raiſed their points above them.

In all this vaſt extent of country, covered with mountains upon mountains, they could perceive no plain, but in a little corner to the Weſt, in the middle of which ſtands *Geneva:* to the *North-Eaſt*, they could diſcern almoſt from one end to the other, that large valley through which the *Rhone* paſſes, from its ſource, as far

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as *Sion*, the capital of *Vallais*, diſtant from the place where they ſtood, about ten leagues: all the reſt of the proſpect was rough with mountains, every part of which, and much more the whole together, might have excited the admiration of the moſt indifferent perſon. One ſingle caſt of the eye, over that immenſe quantity of ice and ſnow which covers the *Alps*, would amply ſatisfy a ſpectator about the continual flow of the *Rhone*, the *Rhine*, the *Po*, and the *Danube:* it is here theſe rivers have their reſervoir, and it might ſuffice for many years of drought: they compared (for there wanted no calculation) theſe ſtreams with their ſources: the *Rhone*, in all the whole of that extent which they diſcovered, appeared but as a little brook, upon account of its diſtance; and yet an equal diſtance, did not leſſen their immenſe idea of the Maſs of ice, from which it flowed. Nearer and not more than a league from this mountain, they diſcerned the ſources of

of the *Arve*, which unites itſelf to the *Rhone* below *Geneva*. Theſe ſtreams appeared to them no more than ſlender *threads* of water, when compared to the valleys loaded with ice, from whence they flow. Mount *Blanc*, which raiſes itſelf amidſt thoſe vallies, *alone* ſeemed capable of furniſhing for a long time the courſe of a river; ſo much was it loaded with ice, the whole of that amazing extent, from its ſummit * down to the very baſe.

THIS ſide of the horizon, offered a moſt ſenſible image of winter; it recalled all the ideas which voyagers have given us of *Spitzberg* and *Nova Zembla:* in a word, it preſented to their eyes, nothing but enormous heaps of ice, terminating in bare frozen pikes or obeliſks, from three to four thouſand feet in height; whilſt the reſt of the mountains, every where diſplayed

* They have found that its height is four thouſand ſix hundred and eighty three Engliſh yards above the Lake of *Geneva.*

played a variety of productions according to their different ſoils, and at the very feet of theſe miſhapen heaps of ice, they beheld paſtures and harveſts.

After having ſome time carried their attention to every object round them, it returned with ſtrength upon themſelves, when they found that they were ſtanding upon a maſs of congealed ſnow, which jutted over a moſt frightful precipice. The firſt effect of this diſcovery, was a precipitate retreat: but ſoon reflecting that the addition of their weight to this prodigious frozen maſs, which had been ſupported thus for ages, could have no effect to bring it down, they laid aſide their fears, and went again upon that horrid terrace. The mountain was as ſteep on this ſide as upon the ſide of *Fonds*, and the projection of the ice carried them ſo far over the precipice, that if a cord had been let down from the point where they ſtood, it would have taken upwards of a hundred and ſeventy

ſeventy Engliſh yards, to approach the neareſt of thoſe pikes with which this ſide of the mountain is jagged; and the ſight would have met with no interruption, till it reached the valley, whoſe depth was probably not leſs than ſeventeen hundred yards below them.

THE cruſt of ice in thoſe parts where they were capable of diſtinguiſhing its dimenſions, (which were conſiderably beneath them) was at the leaſt full ſixty feet in thickneſs; and bordered with more or leſs projection, all that ſide of the ſummit of the mountain, the whole front of which likewiſe for a very conſiderable extent was covered over with ice.

WHAT a ſight for the inhabitants of the plain!—They reflected upon it with a mixture of aſtoniſhment and horror, and held each other by their cloaths, as they advanced their heads to look beyond the precipice. Each of theſe gentlemen, perfectly

perfectly at eaſe for himſelf, wanted that ſecurity for the ſafety of his brother. Either would have trembled at the leaſt ſtep he ſaw his companion take without him—and this mutual apprehenſion, made them both retire from the brink of the precipice, ſooner than either of them would have thought of doing it, had he been alone.

THEY were never tired of conſidering that aſtoniſhing mountain Mount *Blanc*, at the diſtance of about three leagues; the cruſt of ice which entirely covers it, from its baſe in the valley of *Chamouni*, to its ſummit, reſembles in ſome places a tempeſtuous ſea; in others one may fancy the remains of antique towers, and caſtles, ſplit and mouldering into ruins; in others, it projects beyond the points and ſides of pikes and precipices, where a tolerable judgment may be formed of its amazing thickneſs, which appeared

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to be not leſs than from five to ſix hundred feet.

HAVING made two experiments upon the ſummit of the Glacier of *Buet*, where they could continue only three quarters of an hour, they went down again to make another, near ſome little rock, from whence as they aſcended they had broken ſeveral flakes of ſlate *, of which the height of this mountain ſeems to be compoſed. They found in the cracks of theſe rocks, ſeveral collections of *Quarts* of ſingular forms; and a ſmall bed, or matrix, of very pure rock chryſtal. They judged from the poſition of theſe rocks, about two hundred feet below the higheſt elevation of the ice, that they were part of the true ſummit of the mountain, and that all which roſe above them, was only a maſs of frozen ſnow in the form of a truncated cone, two hundred feet in altitude, whoſe

* To ſupport the feet of their ſtove upon the ſnow.

broad baſe ſeated upon an immenſe extent of permanent ice, covers the whole declivity of the ſummit *

THEY call this ice *permanent*, not becauſe they apprehend the very ſame ice always remains there, for beſides the conſiderable quantity that is melted by the heat of the ſummer, there is a continual diſſolution of it below, which is as great or even greater in the Winter ſeaſon, owing to the internal heat † of the earth; but they call it

* Monſieur *Bouguer*, one of the French academicians who accompanied *Don Antonio de Ulloa*, into South America, has obſerved, that the ſnow invariably becomes permanent, even upon thoſe mountains of the *Andes*, which are ſituated in the midſt of the torrid zone, at the height of 2434, toiſes, or 5172 Engliſh yards above the level of the South Sea; ſo that a juſt eſtimate of their ſeveral heights, may be formed by inſpection only, as below the line of this cap, the ſnow is liable to be melted every day.

† The extraordinary intenſeneſs of the cold in Winter, not only upon the frozen cap of the mountain, but

it *permanent* on account of its being renewed every year by the ſnow from above, and it increaſes not leſs in thickneſs, than it does in extent. The melting underneath not being at all times equally performed, over the *whole* of the inferior ſurface, it muſt ſometimes happen, that a large part of this maſs wanting the ſupport of the rock, breaks and tumbles all at once; and it is to this ſinking in, with the enormous weight above, that they attribute thoſe openings ſo prodigious in their depth, their width, and their extent, which we ſee upon ſome Glaciers, and which are made with ſuch a horrid thundering craſh when they ſettle down to fill up theſe vacuities.

but upon its ſides, may probably condenſe a larger quantity of vapours riſing from the internal parts of it, which eſcape during the Summer, through innumerable pores.

THERE can be no doubt of the increaſe of *all* the Glaciers of the *Alps:* their preſent exiſtence is a proof that in preceding ages, the quantity of ſnow which fell during the winters, much exceeded the quantity melted in the ſummers; and not only the ſame cauſe ſubſiſts, but moreover, the exceſs of cold occaſioned by thoſe heaps of ice already formed, will contribute to increaſe it more, the conſequence of which muſt be a greater fall of ſnow ſtill, during the ſucceeding winters, and a leſs diſſolution of it.

THEY obſerved a very ſenſible effect of this laſt cauſe in comparing the mountain of the Glacier of *Buet*, with that of *Grenairon*; this latter offers on the ſide of *Fonds*, a face of the ſame form, and equally expoſed as the eaſtern ſide of the mountain of the Glacier of *Buet:* but that of *Grenairon* is entirely without ice, and even cloathed with verdure upon the jutting

ting parts of it, whereas the other is almoſt wholly covered with ice; the reaſon of which appears to be, that *Buet* is immediately fronting the Glaciers of *Chamouni*, and Mount *Blanc*, and that *Grenairon* is defended from their influence. There can be no doubt then, but that as the Glaciers have continued to increaſe, they muſt ſtill go on, in an increaſing progreſſion, and that conſequently Mount *Blanc*, which may be called a diſtinct Glacier, muſt ſenſibly heighten.

THEY were very eaſy and comfortable near thoſe little rocks to which they had deſcended, where there was leſs cold, and leſs wind; but they were ſurprized at not having perceived any difference in the denſity of the air, but by their inſtruments only; that no inconvenience or diſagreeable ſenſations, ſhould have warned them, that what they now breathed, was near one third leſs denſe, than that of the plains; and that the weight

of the atmoſphere had diminiſhed an hundred quintals upon the body, without the equilibrium being diſturbed within *.

WHAT

* Mr. *De Luc* obſerves in this place how much naturaliſts and Phyſicians are deceived, in attributing the alterations many perſons experience upon the falling of the Barometer, to a difference either in the weight or denſity of the air, aſſigning as a cauſe the failure of an equilibrium between the external and internal air, or a difference of motion in the heart and lungs, occaſioned by the air's being more or leſs denſe. For if theſe changes could ſo ſenſibly affect our organs, what would become of thoſe Chamois-hunters, who paſs every day from the bottom of the vallies to the ſummits of the higheſt mountains? What would become of the women of the hamlets by *Sixt*, who go up to *Fonds* every night in the ſummer ſeaſon to milk their cows, and leaving the cattle to the care of their children, go down again every morning to aſſiſt the honeſt fellows their huſbands, in the cultivation of the lands? Thoſe people, in the ſpace of a few hours only experience the greateſt variation in the weight of the air, than happens in any *one* place at a conſiderable diſtance of time; for the difference in the height of the Barometer at *Sixt* and *Fonds*, is about twenty-two lines,

WHAT a wonderful machine is this! which accommodates itſelf to ſuch extraordinary changes even in the very *cauſes* of its *principal* movements, without which, all its irregularity would be at an end.

AFTER having continued an hour and a half, near theſe little rocks they began to deſcend; the ſun had ſoftened the ſnow as they expected, and they went down the ſteepeſt ſlopes, without difficulty, by a very agreeable method their guide pointed out to them; they jumped upon their heels, which ſunk into the ſnow deep enough to ſupport them: it was undoubtedly neceſſary to obſerve a regularity, and due libration in theſe jumps, that the bo-

lines, from which they perceive not the leaſt inconvenience; even aſthmatic perſons find none; and it is neceſſary therefore to have recourſe to ſome other cauſe, which ordinarily accompanies the variations of the Barometer, to account for the alterations in our health, and particularly in our ſtrength, from which few people perhaps upon ſuch occaſions are entirely exempted.

dy might always follow the preciſe movement of the legs without which, they would have been in danger of falling either backward or forward; however with this caution, it anſwered very well, and they dared not venture to attempt another of coming down, which they ſaw practiſed by their guide, with much more eaſe, as well as expedition. It was not an eligible ſituation in which to try experiments of this ſort. He ſeated himſelf upon the end of his ſtaff, which he paſſed between his legs, and driving his heels more or leſs into the ſnow, he ſkaited, if I may ſo call it, to the bottom, with what degree of ſwiftneſs he thought proper, of which he was abſolute maſter: he would ſometimes ſuffer himſelf to go with prodigious rapidity, and then by plunging his heels gradually deeper, and deeper, would ſtop himſelf with all the eaſe imaginable *.

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* It is common, we are told, for thoſe peaſants who have the care of the roads in the *Alps*, to ſlide down in

As ſoon as they had paſſed the ſnow, and turning towards the ſide of the plain

in this manner upon their ſnow ſpades: and that it is a very agreeable ſight, to ſee ten, or a dozen of them, upon a ſummons following one another down a ſteep mountain, with an amazing velocity; avoiding the precipices, which they run almoſt to the edge of, by a ſmart ſtroke of their heel, that gives a new direction to the motion of their body; juſt as an expert ſkaiter makes his way by the very edge of a broken ſheet of ice, without the leaſt apprehenſion of going beyond it.

But the manner of deſcending the precipices of the Cordilliers, with the ſagacity of the mules, as it is related in *Don Antonio de Ulloa*'s Voyage to South America, is beyond meaſure aſtoniſhing. On one ſide are ſteep eminences, and on the other frightful abyſſes; and as theſe generally follow the direction of the mountain, the road, inſtead of lying in a level, forms two or three ſteep eminences and declivities, in the diſtance of three or four hundred yards. The mules are ſenſible of the caution requiſite in theſe deſcents, for coming to the top of an eminence, they make a ſtand; and having placed their fore feet cloſe together, as in a poſture of ſtopping themſelves, they bring their hinder feet together likewiſe, a little forward, as if going to lie down. In this attitude, having as it were taken a

ſurvey

de Léchaud, began to diſcover the herbage, they heard from different quarters ſeveral ſhrill

ſurvey of the road, they ſlide down with the ſwiftneſs of a meteor. All the rider has to do, is to keep himſelf faſt in the ſaddle, without checking the beaſt; for the leaſt motion, is ſufficient to diſorder the equilibrium of the mule, in which caſe they muſt both unavoidably periſh. The addreſs of theſe creatures is here truly wonderful; for in this rapid motion, when they ſeem to have loſt all government of themſelves, they follow the ſeveral windings of the road as exactly as if they had before accurately reconnoitred it, and previouſly ſettled in their minds what route they were to purſue, and taken every precaution for their ſafety amidſt ſo many irregularities. There would indeed otherwiſe be no poſſibility of travelling over ſuch places, where the ſafety of the rider depends entirely on the experience and addreſs of his beaſt. But the longeſt practice of travelling theſe roads, cannot entirely free the animals from a kind of dread or horror which appears when they arrive at the top of a ſteep declivity. They ſtop, without being checked by the rider; ſhould he ſpur them on, they continue immoveable; nor will they ſtir from the place, till they have put themſelves into the above-mentioned poſture. They ſeem at theſe moments to be actuated even by Reaſon; they not only attentively

ſhrill ſounds like the blaſts of a whiſtle, which had they been in a wood upon the plains, they ſhould have taken for the ſignals of Banditti, and have been afraid of falling into the hands of robbers: but in this place, how much ſoever they alarmed others, they were under no alarms themſelves: theſe ſounds being only ſignals of the

attentively view the road, but tremble and ſnort at the danger; which if the rider be not accuſtomed to, theſe emotions cannot fail of inſpiring him with terrible ideas. The Indians go before, and place themſelves along the ſides of the mountain, holding by the roots of trees, to animate the beaſts with ſhouts, till they at once ſtart down the declivity. It is really wonderful to conſider theſe mules, after having overcome the firſt emotions of their fear, and they are going to ſlide down the declivity, with what preciſion they ſtretch out their fore legs, that by preſerving the equilibrium they may not fall on one ſide, and yet at a proper diſtance make that gentle inclination with their bodies, neceſſary to follow the ſeveral windings of the road, and laſtly, their addreſs in ſtopping themſelves at the end of their impetuous career.

ULLOA'S VOYAGE, Book v. c. 1.

the *Marmotts*, who perceived them firſt, to give their comrades notice: when they ſoon beheld the frighted creatures hurrying away as faſt as poſſible from every quarter, to conceal themſelves in their holes; and the ſame muſic was frequently repeated, while they were traverſing the region of this animal. They got down to the plain *de Léchaud*, at half an hour after three o'clock, ſet out again at half an hour after four, and by ſix arrived at *Fonds*. They reſted here not quite an hour, chooſing rather to lengthen their fatigue, than not reach the Abbey the ſame day, and notwithſtanding the woods they had to paſs excluded every ray of light remaining in the ſky, and they could follow their guide only by the ſound of his ſhoes, they got thither at half an hour after eight o'clock, without the leaſt accident, where they were received as uſual, with that generous hoſpitality and kindneſs, the ſeaſonableneſs of which they had already experienced. A good night's repoſe, and

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the ſatisfaction of having compleated cheir deſign, made amends for all the fatigues they had undergone; they ſet off the next day from *Sixt*, affected with the ſenſe of the goodneſs of their hoſts, laid that evening at *St. Joire*, and returned the next day to *Geneva*, by noon.

THOUGH experiments upon the heat of boiling water, at different heights, were the principal deſign of Mr. *De Luc* and his brother in this journey, it is ſo entertaining and agreeable in itſelf, that they ſhould not have regretted undertaking it, merely from curioſity. It is true that the particulars they had before obſerved in the environs of the valley of *Chamouni*, greatly augmented the pleaſure of which they received from the view the *Alps*, when they were upon the *Glacier* of *Buet*, and it is to thoſe who have already contemplated the heights which ſurround this valley, who have ſurveyed them with pleaſure upon the ſpot, that they

they would by all means recommend this *laſt* journey; which they have endeavoured to render more eaſy by a detail of particulars, the principal of which are as follow.

FROM the Abbey to the *Glacier* of *Buet*, is certainly a very laborious journey, but it is by no means a dangerous one, to thoſe who are capable of ſupporting fatigue any conſiderable time, and of looking down from great heights without dread. As the traveller aſcends, from *Fonds* to the plain *de Léchaud*, there is a perpendicular ſteep where their guide propoſed to them two roads, one of which is farther round but ſafe, the other conſiderably ſhorter, but which they would not adviſe every one to take. Impatience, it is true, and only their impatience made theſe gentlemen prefer it: and the traveller may chooſe the former, which is not in any part of it the leaſt dangerous.

It is adviſeable for thoſe who think they are capable of undertaking this journey, to provide themſelvs with ſuch ſhoes as the mountainers of theſe places wear; they are not only neceſſary to walk upon the hard ſnow, but alſo very convenient in ſupporting the traveller upon the ſteep turf: ſhoes without nails ſoon become ſo ſmooth and poliſhed, that he ſlips almoſt every ſtep, if he does not help himſelf with his hands.

This journey ought to be made in the month of Auguſt, the days are then longer, and the weather more ſettled than in that of September, and the people of this country are leſs engaged with their harveſt. It is moreover highly proper to be at *Sixt* upon a Sunday by the hour of Maſs, to be more certain of meeting with ſome one of the hunters for a guide. Setting out from *Geneva*, on the Saturday morning, the traveller may without in-

con-

convenience get to *Samion* that night, where he may lay in his proviſions: and in ſhort, upon the Sunday he muſt ſettle every thing at *Sixt*, ſo as to be able to lie the ſame night at *Fonds*.

MR. DE LUC concludes theſe directions for the journey to the ſummit of the *Glacier*, with a wiſh they may prevail upon his readers to undertake it. The mountain of *Buet* ſeems to be the moſt engaging to a man of Taſte of all the mountains of the *Alps*, and he ſhould be ſorry, that ſo many beauties ſhould have no admirers but themſelves.

Departure

Departure from CHAMOUNI,

AND

Return by VALLAIS.

AFTER having reſted two whole days at *Prieuré*, we prepared in earneſt for our return: The road by which we came, would have ſaved us two days walking, but we preferred going through the *Pays de Vallais*, and accordingly took that route. In following the courſe of the *Arve* to get out of the valley of *Chamouni*, we paſſed by its third pariſh called *Argentiere*, which is ſaid to have taken this appellation from a ſilver mine found near it. We ſaw likewiſe the *Glacier*,

cier, to which this village gives its name; it is cut like the lining of a baſtion, and the proſpect it affords is the more ſtriking, as it runs up between large woods of fir-trees, which are admirably oppoſed to the whiteneſs, the clearneſs and the varied colours of the ice. Thoſe who enter *Chamouni*, from the *Pays de Vallais*, are exceedingly ſurprized upon their arrival, becauſe this road not having gradually prepared them for the ſtriking effects of the ice and *Glaciers*, (as when we enter on the oppoſite ſide,) the very firſt ſtep they ſet into the valley, unexpectedly preſents the front of this *Glacier*, which may be about twelve hundred feet in its extent from top to bottom. But to us, who had aſcended thoſe which were much higher, who had walked eight or nine leagues upon the ice, and who were juſt returned from ſeeing the very extremities of the icey vallies we have deſcribed, thoſe immenſe *Glaciers*, whoſe ſummits ſeemed to reach into the ſky, and who

who had enjoyed the magnificent proſpect of the *Glacier* of *Talefre*, over againſt *Val d' Aoſte*, to us this view of the *Glacier* of *Argentiere*, afforded nothing very remarkable, or to be compared with what we had already ſeen. More diſtant we diſcovered likewiſe that of *Tour*, which deſcends like a caſcade down a ſpacious valley of ice: it differs from other *Glaciers* in the form of its frozen waves, or beds of ice, which are rounded off more like regular globes, ſo that when ſeen from a diſtance, and the ſun happens to ſhine upon it, there are a thouſand ſuns reflected inſtead of one. The valley crowned by this *Glacier*, is a collection of mountains of ice, piled one upon another, and is not to be aſcended; its very aſpect which is frightful, gives us an idea of *Spitzberg* and *Nova Zembla*, and the falls of ice are too frequent to admit even a near approach to it; the thundering down of theſe fragments, is heard ſeveral leagues off, and ſuch is the violence of

of their ſhock, that *Valorſine* hath been frequently alarmed with the concuſſion. In the mean time, it is remarkable, that the ſpace between this valley horrid with broken mountains of ice. and *Val d' Aoſte*, which partakes of the fine climate, and the fertility of *Italy*, is at moſt not a bove two leagues.

At a leſs diſtance, more towards the North, we may diſcern likewiſe the ſource of the *Arve*, which flowing at firſt from three ſprings only, is very ſoon conſiderably increaſed by the torrents from thoſe *Glaciers* I have juſt ſpoken of.

Two hours walk from *Prieuré* carried us out of the valley of *Chamouni*, at the oppoſite end to that by which we had entered. A road we aſcended on our left, conducted us into the *Valorſine*, which on that ſide borders upon the country of *Vallais*. This valley which extends from South-weſt to North-eaſt, may be about three

three leagues in length, and leſs than a quarter of a league in its greateſt breadth. From its broken ruinous appearance one would at firſt think it uninhabited; but farther on, we diſcover ſome few houſes, and in the middle of it, on the left hand, is to be ſeen an opening, with the moſt beautiful fall of water imaginable.

To go to it we were obliged to quit the great road; and it is not till we come very near, that it appears in all its beauty. It is a conſiderable river that deſcends from the Glacier of *Buet*, and falls eight hundred yards from the ridge of a mountain which is almoſt entirely covered by the ſpouting ſheet of water; this torrent magnificent and even terrible, far more grand and ſublime than the caſcade of *Terni* *, pouring from a reſervoir which

* The caſcade of *Terni*, commonly called *Caſcati del Marmore*, from the mountain it runs over, is in the dutchy of *Spoletto*, near the city of *Terni*, and is formed by the river *Velcino*. This river, after glid-

ing

it has hollowed upon the mountain, rolls along its rocky channel, and bounding to the very bottom of the valley,

——magno cum murmure Montis
It Mare præruptum, et Pelago premit arva ſonanti.

At

ing many miles with a gentle quiet courſe, reaches the ſteep declivity of its channel, which is ſhaded with thick trees of a perpetual verdure, as are likewiſe the ſurrounding mountains. The ſtream no ſooner reaches this declivity, than it proceeds with ſuch rapidity, that every wave ſeems animated in preſſing forward to overtake that which is before it, till they ruſh at once with a tremendous noiſe down a ſteep rock, at leaſt three hundred feet in height, and falling upon other rocks againſt which they daſh and break, the waters riſe again in miſts, which hovering ſome time in the air, above the level of the cataract, and the neighbouring fields, deſcend in a continual drizzling rain upon the adjacent valley. After this they ruſh again tumultuouſly into the cavities of the mountain, and foaming, burſt through ſeveral openings, when after rolling over ſome other precipices, they at laſt reach the bed of the river at the bottom.

At the ſame time this fine water-fall is embelliſhed by large trees, which ſhoot from the ſummit of the mountain into the clouds, and in its front, by lofty firs and rocks, ſo as altogether to form a picture the moſt delightful as well as extraordinary.

ARRIVED at the pariſh of *Valorſine*, we had the pleaſure of meeting a Brigadier we had been acquainted with at *Chene*, who commanded a party of eleven men quartered at this paſs to prevent the ſmugglers entering into *Savoy*. It was here we croſſed the *Buetine*, commonly called the *Blackwater*, where the ſtone or boundary, is ſeen that ſeparates the two States; and going on a little farther, entered ſoon into a very narrow defile, where there ſtill remain ſome ruined fragments of a gate and tower, which formerly defended the entrance into this country. As we walked without a guide, every thing that ſurrounded us was enough

enough to alarm even the moſt intrepid mind; we ſaw nothing in our route, but rapid torrents, naked rocks, or mountains entirely covered with lofty woods of fir-trees; in ſhort, there was not the leaſt appearance of a country that could poſſibly be inhabited.

Not far diſtant however another valley opens, which though it has no plain, has notwithſtanding ſome habitations, and a few paſtures encloſed by large woods. It is commanded by a ſingle pariſh, called *Epegnon:* This village, ſeated upon a green turf, almoſt at the top of a mountain, and upon a ſteep declivity which is crowned with pines, produces a very ſingular effect.

Leaving this pariſh on our left, we aſcended a mountain full as high as the *Voirons:* our road conducted us through beautiful woods, and over rocks of a blackiſh colour, but was ſo extremely narrow

narrow, it is difficult to conceive, how a mule can poſſibly make its way through it, and the ſky was almoſt always hidden from us. Two thirds of the way up this mountain, is a rock in the form of a chimney, one face of it indeed is wanting, but the obſcurity of the place, and ſome large trees, ſupply the defect. In this road we could not but remark the prodigious height of the pines, of which many were from a hundred to a hundred and ten feet high. We obſerved ſeveral of theſe had no other foundation than the rock, from which they at firſt ſhoot out horizontally, and at the diſtance of half a foot from it turn up into the air. In examining how they could be nouriſhed and ſupported, we found their roots to run between the joints, and clefts of the rocks, which were very numerous, and that they perfectly filled up every rift, and every vacuity in them; but the mold that is originally generated by the rotting of the liverwort, and other rock produc-

tions of a ſimilar kind, which is waſhed into theſe clefts, being perhaps the richeſt ſofteſt foil in nature; and as the ſaplings muſt have continued to be moiſtened by the waters and ſalts which diſtil from theſe plants, till their roots were ſhot to a prodigious depth, it is not difficult to account for the abundant nouriſhment of them, and the cauſe of ſuch an extraordinary vegetation.

ARRIVED near the ſummit of the mountain, we had the ſatisfaction of finding a plain ſmooth rock with ſeveral names engraved or written upon it, amongſt which we diſcovered that of Mr. Profeſſor *De Sauſſure*. The ſight of theſe names revived our ſpirits; they afforded an ideal preſence of the Writers, they were a proof that we were in the right road, and gave us hopes of being ſoon delivered from thoſe gloomy foreſts; for upon conſidering their ſituation, it inclined

inclined us to believe, that we had only to continue ſtrait forward beyond *Epegnon.* We were fully poſſeſſed of this idea, when acroſs ſome trees, we diſcovered our road cut by a valley, which drawing towards the right hand appeared only like a broad deep ditch. It was here, that already harraſſed by our long fatiguing walk, we again were not without our fears of the diſtance we had yet to go; more eſpecially as we were without a guide, and could not perceive the leaſt trace of habitation: add to this our being ſurrounded on every ſide by mountains covered with extended woods, ſo thick and dark, that they gave us no idea but of the retreat of the moſt ſavage animals, and that we were unacquainted with any certain path by which to extricate ourſelves out of them.

We did not however wholly loſe the track that had conducted us thus far, it

extended to the right, with this new opening; and the more our ſituation was alarming, the ſtronger were our efforts to get out of it. This valley which was terminated by an immenſe rampart of pines, might be near three leagues in length; believing therefore we muſt travel to the end of it, we doubled our pace; the fear of being benighted in thoſe horrid foreſts, gave us wings, and in three quarters of an hour we at laſt diſcovered a ſmall plain, which afforded hopes that we might ſoon arrive at habitations.

In fact it was not long before we diſtinguiſhed ſeveral houſes with a chapel: it proved to be the village of *Trient*; and and here we learnt that it was ſtill three long leagues farther, to *Martigny*, the town of *Vallais* where we were to lodge. Beyond this village is an opening between the mountains, by which we were to paſs; we took the road to it which was ſteep,

ſteep, and it was three quarters of an hour before we could reach it.

But having gained at length this narrow ſtraight, a landſcape as delightful as it was unexpected, opened before us; judge Reader of our tranſport at the proſpect of the *Pays de Vallais*, which from this point is ſo pictureſquely ſtriking, that all the labours and difficulties we had undergone ſeemed nothing to the pleaſure we now felt. Two mountains covered with lofty fir-trees, and whoſe appearance was romantic, extended on our right and left, and cloſed behind us; at their baſe were fertile paſtures; and in front, but far below us, at the bottom of the valley, the very firſt object which preſented itſelf upon the plain, was the town and city of *Martigny*, ſomewhat more than two leagues diſtant. This valley runs forward from *Martigny* in a ſtrait line for ſix or ſeven leagues in length, and a league in breadth; and is

divided through its whole extent by the *Rhone*. There are other ſtreams beſides, which winding with a mazy movement rather ſeem to be the work of Art, than that of Nature, the brilliancy of whoſe tranſparent waters, the trees, the meadows, the vineyards, the corn-fields, the great and croſs roads, the villages, the towns, the ſplendid colouring of the mountains oppoſite to the ſun, and the brown tints of thoſe on the contrary ſide, with *Sion*, the capital of *Vallais*, diſcoverable in the diſtance, all theſe objects affected us in the moſt lively manner, and gave us jointly an idea of the richeſt country, or rather of the moſt beautiful and magnificent garden.

We had yet two leagues to walk to *Martigny*, and ſeveral villages to paſs upon the declivity of this ſtraight: and in this road it was we ſaw for the firſt time, ſeveral perſons with the ſwelled throat, of a prodigious ſize; who have generally a thick-

a thickneſs and a faltering impediment in their ſpeech. We aſked one of theſe ſtag-necked men, how far it was to *Martigny*, but it was impoſſible to underſtand him, and we doubted whether he underſtood our queſtion; we at laſt however arrived at this place an hour after ſun ſet.

MARTIGNY is divided into two parts, the City, and the Borough: they are a - a quarter of a league diſtant from each other, and the Borough has more the appearance of a city than the very city itſelf; it is a long and ſpacious ſtreet; the church is large but has ſcarcely any paintings, and by its diſpoſition and the ſimplicity of its ornaments, and of the organ which decorates it, one would take it for a Proteſtant church. The buildings of this city are not diſagreeable; but though tolerably well inhabited, it has conſiderably declined, ſince it is no longer the

reſidence of the Biſhop and Prince of *Vallais.*

We were tempted to puſh on as far as *Sion*, but this excurſion not being conſiſtent with our plan, we were obliged to give it up; the next day then, we took the road to *St. Maurice*, following the courſe of the *Rhone* for the length of a valley of about four leagues, but incomparably leſs beautiful, leſs in breadth, and not ſo well peopled as that which I have deſcribed from *Martigny* to *Sion:* the road is nevertheleſs engaging, and it is in this route you ſee the celebrated fall of the *Blackwater*, which is not very delicately called here *Le Piſſe Vache.* It preciptates down the mountain from the height of about eighty feet; but this fall which many people boaſt of, is not to be compared with that of the *Valorſine*, or with that of *Nant d' Arpenaz*, in the valley of *Sallenche*; when we ſee it near indeed, its ſheet is broad, which together with

with the fine miſt which expands to ſome diſtance from it, conſtitutes its principal beauty. But what it has of ſingularity is, a very narrow paſſage acroſs the gill of the mountain, over a few ſlender boards placed upon ſome projections of the rock; this ſort of bridge is very dangerous, and uſeful only to the inhabitants of the *Valorſine* and *Epegnon*, who it ſeems paſs by this ſtrait into the heart of *Vallais*, which ſhortens their road conſiderably.

THERE is nothing more that is particular here, unleſs it be the ſituation of a tolerably handſome building as we approach *St. Maurice*; it is placed upon the ſhelf of a rock about half way up the ſide of the mountain, which ſeems as if it were cut down perpendicularly by art, and we learned it was a hermitage.

THE avenues to *St. Maurice* * are charming. This city, famous for the martyrdom of the *Theban Legion*, is tolerably handſome; the houſes are regularly built, and the ſtreets in good order, neat, and clean. The women are remarked for the regularity of their ſhapes, the greater part of the young women have no other head dreſs than their hair, unleſs perhaps a little hat adorned with ribbands, and their difference of condition is to be diſtinguiſhed only by the quality of the ſtuff their cloaths are made of, and not by their faſhion, which is in all degrees alike. Thoſe who are the moſt diſtinguiſhed, wear a coloured petticoat, and bodice

* *Mauritius*, from this place received its honorary name, *is ſaid* to have commanded a Theban Legion, conſiſting of about ſix thouſand men, in an expedition into Gaul, under Maximian, by whoſe order the whole body was cut to pieces, with their leader, for refuſing to fight againſt their brethren the Chriſtians.

bodice of the ſame, with a fine muſlin apron, and the richeſt of them adorn the bottom of their petticoat with two rows of ribbands of different colours, which is all their finery; this elegant manner of dreſſing has ſubſiſted with them time out of mind: in ſhort the city is well peopled, and has ſeveral churches. Being a frontier to the Canton of *Berne*, it guards the entrance of the lower *Vallais*, of which it is the capital; and its ſituation between two ſteep mountains and the *Rhone* that waſhes it, would render it in time of war, a poſt of great importance; though the caſtle of the Governor is but a very rude antique building, caſed with brick: its ſtone bridge upon the *Rhone*, is firm and ſtrong, and conſiſts only of a ſingle arch.

From this city you have the choice of two roads to *Geneva*, one through the States of *Berne* which is on the other ſide of

of the *Rhone*, and that which is upon the left, on this ſide of it. Having gone by both of them, I ſhall ſay ſomething of each.

TAKING then the latter, you do not croſs the river, but travel in a very agreeable route, where you are entertained with the aſtoniſhing contraſt between the rugged mountains of *Savoy*, on one ſide, and the beautiful country under the government of *Berne*, on the other. This part of the lower *Vallais* that we paſs over, ſtill keeps its fertility; the lands are finely cultivated, you meet with many handſome villages, and paſs by *Monthey*, a ſmall city, whoſe ſituation is exceedingly agreeable. This road too is well beaten by the guards, whoſe care contributes to its ſafety, and relieves the mind of the traveller; ſuch precaution here, as likewiſe that of defending all the croſs roads under

under rigorous puniſhments, has not long ſince been neceſſary; it brings us in ſhort to the head of our lake, and within a few hours to *St. Gingo*, the laſt village in the country of *Vallais*. From this village you paſs by *Evian*, *Ripaille*, *Thonon*; which jointly with the proſpect oppoſite to the lake, along which you coaſt, agreeably diverſify this route; and two days are ſufficient for the whole journey.

THE other route by the province of *Berne*, though ſomewhat longer, is in many reſpects much preferable, whether we regard the beauty of the country, and the curioſities that we meet with in it, or the conveniency of being able to accompliſh the journey either on horſeback, in a carriage, or by water; an advantage this not to be deſpiſed by harraſſed weary travellers; who after having ſufficiently indulged their curioſity, are apt to grow impatient of

of fatigue and wiſh to be at home. This road then remains to be deſcribed.

HAVING croſſed the bridge at *St. Maurice*, the traveller is inſtantly in the territories of the Canton of *Berne*; within an hundred paces of this bridge is a door like that of a barn, where guards are ſtationed to make the uſual enquiries at going out of one government into another, and the Bear (the enſign of *Berne*) is painted up on the front of this gatehouſe: as ſoon as we have paſſed it, the country opens to a conſiderable extent, and immediately its beauty, its fertility, the richneſs of its hills, and the number of its inhabitants, give the moſt favourable idea of the governmet of *Aigle*.; the other ſide of the *Rhone*, as far as the lake of *Geneva*, makes, as I ſaid before, part of *Vallais*.

WE were no more than three quarters of an hour in going from *St Maurice* to *Bex*. This village, perhaps the fineſt in *Swit-*

Switzerland, is well known for the ſalt-works in its neighbourhood, which are at the ſame time very large and ingeniouſly conducted, and afford many things well worthy the curioſity of a traveller. From *Bex* you go to *Aigle*, a pleaſant town, ſituated at the foot of a fine fertile mountain, its inhabitants are men of ſpirit and gaiety, who live much at their eaſe; there are many clock and watch makers reſiding in it, but it is to be feared this manufacture is in a ſtate of decline, owing to that taſte for the pleaſures of the country which moſt of the workmen fall into. The trade begins already to feel a kind of languor, and the diſorder moſt probably will increaſe.

A FEW leagues beyond this city bring you to the head of the lake, and you ſoon reach *Villeneuve*, which is ſituated upon its banks. From this laſt town we came

to

to *Vivay*, a delightful little place, from whence begin the beautiful vine-yards of *La Vaux*, which continue for the extent of near four leagues. In this concluſion of our walk, we often looked behind us, for a glimpſe of thoſe mountains we had viſited, our eyes accuſtomed to the ſight of ſuch amazing heights, conſidered theſe which now ſurrounded us, as only hillocks. Mount *Jura* notwithſtanding, as likewiſe the *Mole*, are diſtinguiſhable and ſupport their dignity; but Mount *Blanc* is more than twice as high as the higheſt of theſe, computingonly from the valley of *Chamouni*, and it appears ſo even at its baſe, which we had gone over *.

Our return to *Geneva* was without any accident, we felt nothing of our fatigue, and

* Mount *Blanc* 11180 French feet above the valley of *Chamouni*.

The *Mole* no more than 4562 French feet above the lake of *Geneva*.

and the exercise we had taken kept us for a considerable time in such a degree of strength, as made us look upon an excursion of four or five leagues but as an airing, which gave us no more trouble than a walk of a single league would have done before we set out upon this most agreeable expedition.

Directions

DIRECTIONS

FOR THE

JOURNEY to CHAMOUNI.

SETTING out from *Geneva* early in the morning (if on foot) before day-break, the traveller may dine at *Bonneville*, and lie at *Cluſe*. This journey is rather too long in very hot weather; as it is a walk of about ten leagues.

THE ſecond day the traveller may lie at *Sallenche*, which is not above five leagues from *Cluſe*, but then four hours may be well employed in viſiting the cavern of *Balme*, which I would by all means adviſe.

THE

THE third day brings to him *Prieuré* in the valley of *Chamouni*: This laſt walk is long, and veryfatiguing, but it is not poſſible to ſhorten, or to render it eaſier.

FIRST EXCURSION

In the Valley of Chamouni.

IF the weather be fine, advantage ſhould be taken of it, to aſcend Mount *Breven*. This excurſion will employ an entire day.

SECOND EXCURSION.

As the Glacier of *Pelerins* is intereſting in many reſpects above the other Glaciers, the traveller may aſcend it, ſetting out very early in the morning, and ſee the Glacier of *Boſſons* in his return; or if he prefer it, he may aſcend that of *Boſſons* firſt, and go from thence to that of *Pelerins*: this he will find a very laborious day's walk.

I SAY nothing of our walk along the *Needles*. The ſight undoubtedly is very grand, but it muſt be dearly bought by thoſe who are not exceeding good walkers; for which reaſon there are few perſons to whom I would venture to recommend it.

THIRD EXCURSION.

To ſee the valley of ice of *Montanvert*, and advance into it, will take up a day, and the traveller muſt ſet out three hours before ſun-riſe; or otherwiſe he muſt aſcend the mountain the day before, and lie there, as we did. Thoſe who can be ſatisfied with a ſimple proſpect of this valley, may take a view of it, and ſee the maſs of ice at the ſource of the *Arveron*, in their deſcent, the ſame day.

Return

Return by the Païs de Vallais.

FROM *Chamouni* to *Martigny* is a day's journey. From *Martigny* the traveller may, if he paſſes by *Savoy*, lie at *St. Gingo:* or he may reach as far as *Evian*; but this muſt be with great fatigue. I ſay nothing of the route by *Switzerland*, as every perſon may in this reſpect conſult his own inclination. It is almoſt needleſs for the traveller to burthen himſelf with proviſions, but it will be abſoluteiy neceſſary to provide a pair of Mountaineers thick ſhoes with nails, and to be warmly clothed, to fence againſt the cold of the Mountains.

24 MR 70

Heights above the Level of the MEDITERRANEAN SEA.

	French feet.	Eng. Yds.
LAKE of *Geneva*, at the lower paſſage of the *Rhone*	1126	398
Lake of *Neufchatel*	1287	456
Higheſt Point of the Needle of *Saleve*	4220	1488
Summit of *Canigou*	8718	3088
Summit of *Dole*, the higheſt Mountain of *Jura*	5082	1800
Summit of *Mole*	5688	2014
Valley of *Chamouni*	3166	1121
Ridge of *Breven*	8326	2949
Valley of *Montanvert*	5266	1865
Abbey of *Sixt*	2250	797
Granges *des Communes*	4995	1769
Higheſt Grange of *Fonds*	4116	1458
Summit of *Grenier*	7854	2782
Summit of *Grenairon*	8352	2958
Plain de *Lechaud*	6480	2295
Summit of *Buet*	9360	3315
Mount *Blanc*	14346	5081
Mount *Ætna*	11294	4000

Heights

Heights above the Level of the OCEAN.

	French feet.	Eng. Yds.
HIGHEST Part of the *Table*, at the Cape of *Good Hope* - - - - -	3255	1153
Top of *Snowdon* in *Wales* - - - - -	3456	1224
Pike *Rucco* in the Iſland of *Madeira* -	4769	1689
Pike *Tenerife* - - - - - - - - - -	12420	4399
The ſame Pike, according to the late Dr. Heberden of Madeira. - - - -	14490	5132
Summit of *Cotopaxi*, in the Province of *Quito*, according to *Don Antonio de Ulloa*	18756	6643

	French feet	Eng. Yds.
RIDGE of *Breven* from its Baſe in the Valley of *Chamouni* - - - - -	5160	1828
Summit of Mount *Blanc* above the Valley of *Chamouni* - - - - - - - -	11180	3960
Granges *des Communes* above the Abbey of *Sixt* - - - - - - - - - - -	2745	972
Summit of *Grenier* above the Abbey of *Sixt*	5604	1985
Summit of *Grenarion* above the Abbey of *Sixt* - - - - - - - - - - -	6102	2179
Icey Summit of *Buet* above the Abbey of *Sixt* - - - - - - - - -	7110	2518

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THE END.